CURRENT NOTES

Helping Atari Owners Through the World of Computing

Vol. 13, No. 7

September 1993
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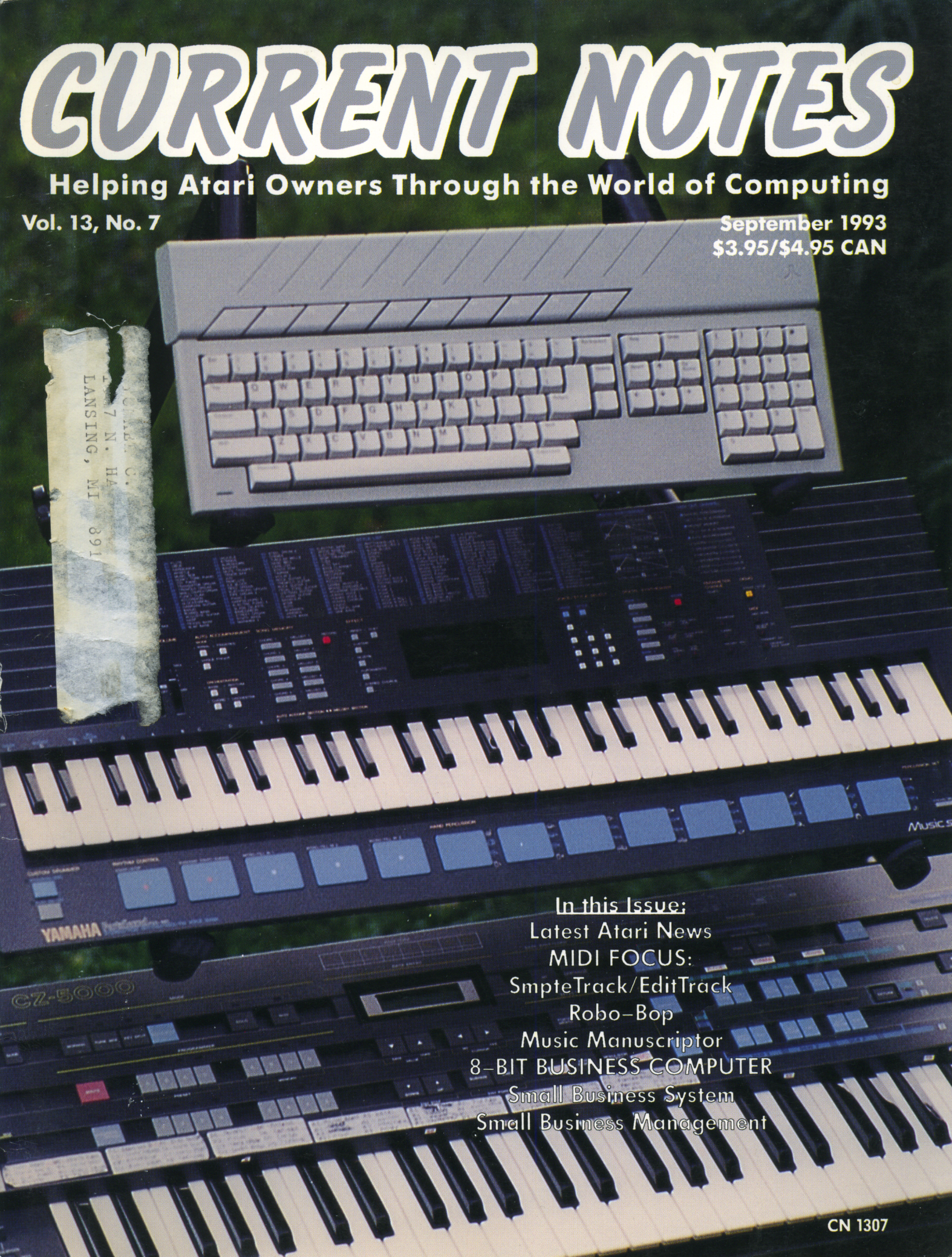

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Robo-Bop
Music Manuscriptor
8-BIT BUSINESS COMPUTER
Small Business System
Small Business Management

CN 1307

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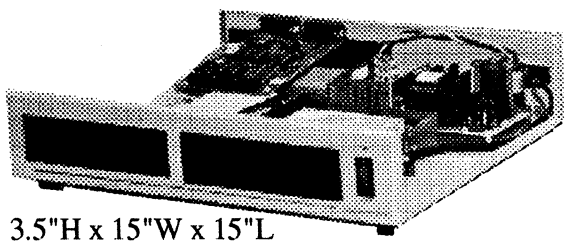

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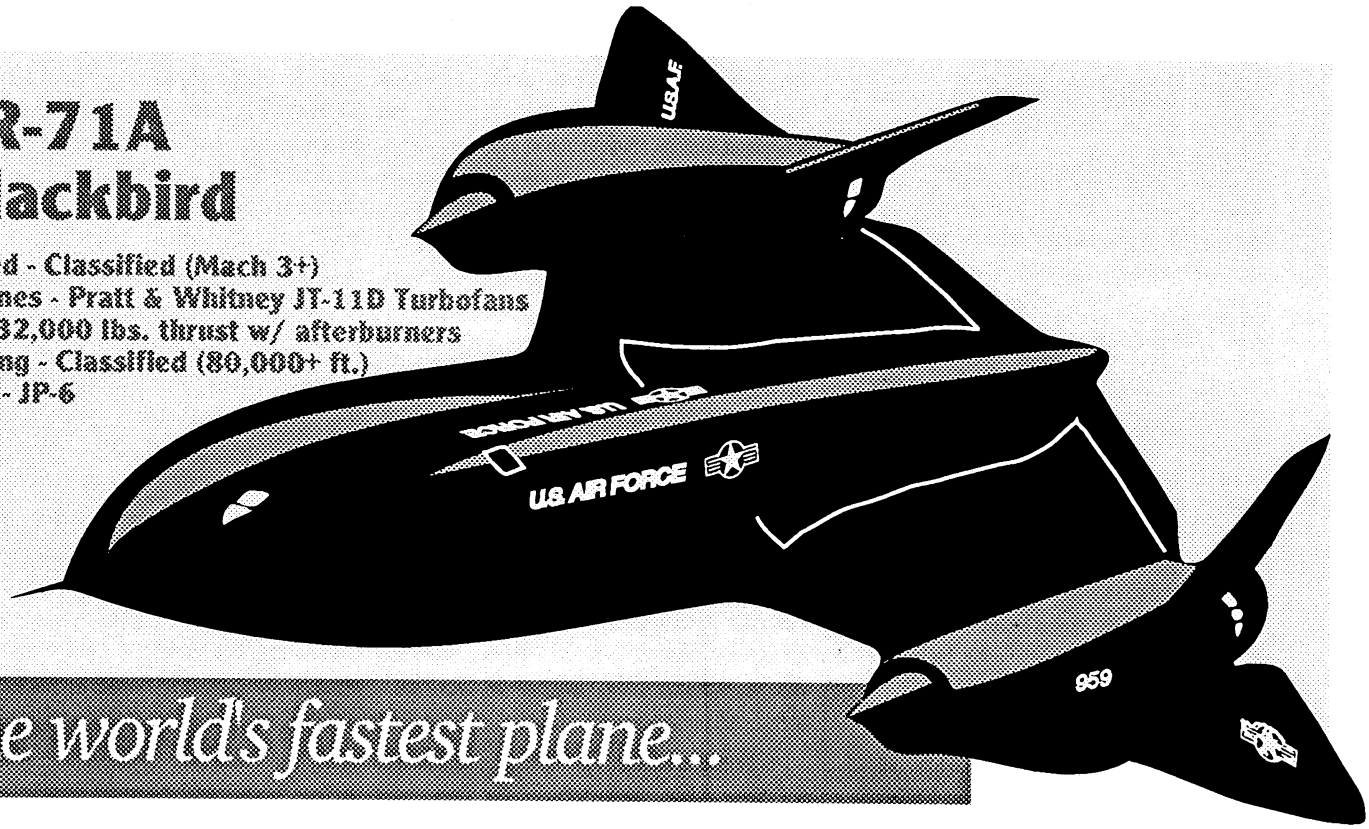

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From the Editor's Desk

What I Did This Summer

It's hard to believe it, but summer is just about over. We were lucky enough to have Joe Jr work for CN this summer while he was on vacation from Virginia Tech. Joyce took the opportunity to try and catch up on a backlog of household chores. I, on the other hand, was determined to update and rejuvenate the Current Notes library of utility disks.

Utilities have always been popular in the CN library. These are the little programs that help you with a wide variety of tasks associated with managing, maintaining, and/or improving your Atari system (computer, memory, mouse, function keys, hard drive, floppy drive, monitor, printer, programs). Utilities also include programs such as simple data bases, address books, calculators, alarm clocks, editors, and calendars.

There are *a lot* of utilities available for the Atari computers. In fact, the CN library listed 111 utility disks in its collection. Now, how does one get a handle on such a vast volume of data? Many utilities are regularly updated by their authors and, usually, only the most recent version need be kept. In addition, it was inevitable that some programs appeared more than once in the library, sometimes even with a different filename.

My task was to catalog that collection and then eliminate the duplicates as well as early versions of programs. In addition, by putting all of the files associated with a given program in a unique folder, compressing that folder, and putting the compressed files on double–sided disks, I could pack an enormous number of utilities on a small number of disks. On each disk, I built a "Readme" file with a brief description of each program so the user would have a good idea of what each file did. By aggregating all of these "Readme" files, I couyld also produce a detailed catalog of what was in the library. The catalog could be imported into desktop publishing software and formatted to help advertise the library. In addition, with the electronic format, it would be a simple matter to use almost any word processor to search for particular functions and find programs that might accomplish the desired task.

I found that it took a very, very long time to accomplish all of the steps outlined above. But I did it. The 111 utility disks in the CN library have now been reduced to only 27. Roughly $400 of public domain software is now available for $100. The cost/utility was reduced by some 75%; a tremendous savings for our customers. I continued the effort into the telecommunications disks and educational disks and made similar progress in those areas as well.

My biggest disappointment, however, was that the printed version of the utility "catalog," even in small 8–point type, extended over 15 pages. Far too many to include in an issue of Current Notes. I had done all this work, but how could I tell anyone? Well, as you will see in this issue (page 76), I had to settle for a compromise. I generated yet another file that had just the "names" of the utility programs on each disk (some disks have as many as 60 programs on them!) If only one or two of the programs on that disk meet your needs, the disk has paid for itself; everything else is a bonus.

The tradeoff, of course, on these disks is that you will need to uncompress the files before they can be used. But the increased value to the consumer should more than offset the extra step involved. I hope our readers like the new format of these CN library disks. If sales show that it is worthwhile, I will tackle other sectors of the library in future months.

Joe Waters

CURRENT NOTES

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The Cover: The Atari (old or new) is becoming a standard part of many a keyboard rack. We highlight the musical Atari to compliment our reviews of SmpteTrack/EditTrack and Robo–Bop, and Gary Woods' interview with the author of Music Manuscriptor. Photo (c) 1992 by M. Heininger.

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Time to Renew?

Take a peek at your mailing label. If you see the expression **9310** on the first line, then your subscription expires in 1993, month 10, i.e. the upcoming October issue is the last one in your current subscription. If you see **9311**, your subscription will expire in November. Please **RENEW** as soon as possible to avoid missing any issues of CN. You can renew using your MC or VISA card by calling (703) 450–4761. Many thanks for your continued support!

Moving?

Don't forget to send in a CHANGE OF ADDRESS notice if you are moving. Current Notes is distributed via 2nd class U.S. mail. The post office does not forward 2nd class publications; they throw them away!

Letters to the Editor

Unhappy with Goldleaf

Dear Current Notes,

I would like to express my displeasure at the problems I have had with *Wordflair II* and the Goldleaf Publishing people. I have had a lot of trouble with these people as the program barely works and they do nothing but talk a lot. I even went to their "office?". It is a mail drop only. I am at the point of throwing in the towel on this program and the money I have spent on it. What a waste!!!! What a con-job!!

Tom Harpham
Glen Allen, CA

We contacted Mr. John Fox of Goldleaf Publishing, Inc. concerning your letter of complaint. Goldleaf has scaled back their presence in the Atari market due to financial considerations until the Atari market shows signs of recovery. In the interim they will not be expending funds on promoting or developing Wordflair II. They will, however, continue to provide on-going support through GEnie (at WORDFLAIR), by mail, and once a week via phone. Their address, which is indeed a mail drop (not unusual in this business) is unchanged but their new phone number is listed below. You can get leave a message at this number (voice mail) for information or technical support.

Steve Kiepe, ST Ed.

Where is SDS?

Dear Current Notes,

I purchased the *Deskjet Utilities Pak* of Software Development Systems in July 1992 and returned the registration card along with a check for the soon-to-be-released update, *Printer's Utilities Pak*. I have never received this update despite the fact that I have written them twice and called long distance three times. Are they out of business????

Robert Hochwalt
North Canton, OH

SDS temporarily discontinued phone service when it became apparent that new products would be delayed. The Printer Development Pak was delayed due to some conflicts in its relationship to SpeedoGDOS. SDS will continue to attempt to remedy this situation. In the meantime, refunds are being offered to those who request them. You can contact SDS (Scott Sanders) at: 996 Redondo Ave, Suite 404, Long Beach, CA 90804. Scott can also be reached through GEnie. Send e-mail to S.SANDERS2. Scott remains active in Atari product development including writing Atari's System Audio Manager for the Falcon.

Steve Kiepe, ST Ed.

Some Questions

Dear Current Notes,

As an Atari user, I felt I must have my say. You see I live in the U.S. Virgin Islands and the nearest Atari dealer was Atari Puerto Rico (which has since closed). I can not buy Atari software here, so I just order most of my stuff. Some have asked me, "Why don't you move to the PC scene?" Well, I have always felt that the PC's were boring machines to work with, which lacked standardization (e.g. so many different sound cards), while the ST hardware has remained very consistent for the last seven years. Also, whenever I go back to my college, which has excellent Internet access literally all over the world (like Yat Siu of Lexicor and Knightman on the IRC Atari channel), I can tap into the ST's massive p.d. library (which is rumored to be larger than that of any computer). I just ordered my Falcon030 from MCD (they are so friendly), and look towards getting my feet wet, which is where my questions arise. This I must ask:

1) How does Atari support the Falcon030 in the U.S.A.?
2) Is the Falcon their last computer?
3) Does Atari plan to jump to RISC or Parallel processing upgrades for any computer it builds in the future?
4) How many Atari applications use the Falcon's DSP?
5) How many CD applications exist for the Falcon?
6) How are Falcon sales doing, and how have Falcons been received by the computer community?
7) Is the Falcon a threat to anything?
8) How is the ST/Falcon Games scene in the U.S.A. and Europe?

Amalaye Oyake
Christiansted
St. Croix, U.S.V.I.

So many questions! Although I envy your St. Croix home (I lived in the Caribbean a decade ago and spent much time in St. Croix including a honeymoon at the Buccaneer) your "isolated" location will likely continue to require you to meet all of your sales and service needs via mail order. OK, from the beginning: The Falcon is still a very new machine in the U.S.A., with sales through early August at probably less than 2000 machines (Atari won't release figures). The dealer base is very small and growing slowly, primarily oriented toward the music industry. Limited numbers of dealerships offer warranty service (the Falcon is reportedly easy to service) with Atari itself handling the rest.

Although Atari refuses to comment on computers that may follow the Falcon, they have acknowledged that there are other projects in the works. Atari has in the past managed to bring forth interesting and, frequently, ground-breaking computer hardware. The announced Jaguar game machine shows that they haven't lost their touch for ingenuity. In the interim, it is still very early to see many applications that use the specific capabilities of the Falcon such as the DSP and those that are available are mostly aimed at the music market. Few Atari specific CD-ROM's are available in the U.S. market and I'm unaware of any Falcon-specific CD-ROM currently available. The future is yet to be written, but there is much interest in these machines, especially in Europe. The Falcon has received rave reviews from the music industry, but it has mostly been ignored by the larger computer community. European games are increasingly being imported into the U.S., but the number of new U.S. origin titles has dropped drastically compared to the ST's heyday. For now, the market is watching and waiting, but the positive upswing in Atari stock prices is a good sign.

Steve Kiepe, ST Ed

Printing with SLM804

Dear Joe,

I just received the July/August issue of *Current Notes*-looks great! I noticed the letter you printed on page 7, about attaching the SLM804 to another computer (not Atari), and your response. In fact, there is an indirect way of using the SLM804 with another computer, as long as the ST is still connected to the laser printer. Version 1.4 of the Diablo 630 printer emulator is needed (I believe it's here on GEnie (c) 1990). Boot up the ST with the diab630.prg driver in the AUTO folder. Then, run the setup630.prg and switch the data source (top of the dialog box) from internal to SERIAL. From now on, any data received through the serial port will now be automatically printed on the laser printer. For example, simply hook up your PC to the ST with a serial cable, and

the ST/SLM804 combination acts as a Diablo printer. Good Luck.

Norma E. Walker
(N.WALKER3)

Van Nest; Nova Cards

Dear Joe,

(1) I am sad to report that William A. Van Nest, Sr., the author of the popular shareware terminal program, *VanTerm*, died in January of this year. I learned about his moving on from his stepfather after sending a shareware check to WIlliam in June to support his continuing development and support of *VanTerm*. I never knew William or had any contact with him, yet I trust that some of those who did know him one way or another will appreciate having this information.

I have hardly used *VanTerm* myself, because I am typically too busy to take the time to get on-line and figure out how to use it. However, I anticipate using it more ("someday"), since it seems to be one of the most popular and well-regarded terminal programs. On the other hand, by the time I get around to using it, there'll probably be spiffier terminal programs available.

Perhaps some competent, dedicated, and trustworthy programmer might be able to acquire the source code for *VanTerm* and continue to develop it and support it.

(2) On another subject, my preliminary impression of the capabilities of the *Nova Graphics Cards*–from several phone discussions with Lee Seiler of Lexicor–is that the cards offer great possibilities for breathing new life and capabilities into the ST family of computers. An adapter is required to equip the 520ST and 1040ST for the Megabus version of the card. Apparently, the adapter does not have to be a full-blown Megabus. The cards include graphics accelerators, so that the big increase in bytes of data that have to be sent to the monitor (compared with the standard Atari ST resolutions) doesn't slow down the output, and rather makes for fast video outputs. This appears to mean that I don't have to have a TT or a 68030 accelerator to get fast video outputs with high-resolution color graphics on a standard 8 MHz ST or a Mega. The two Megabus cards are also equipped with math coprocessor slots, and Lee told me that the coprocessor would be available to (usable by) any software that is written to use it, not just graphics software that is written to use it (such as the Lexicore software).

At the same time, I'd like to see a demo or read one or two in-depth reviews of the *Nova* cards before investing–particularly on the two Megabus versions. Are any such reviews scheduled for *Current Notes* soon?

One final note about Lexicor: All of my contacts with Lexicor over the past two years have been with Lee Seiler–and all have been very positive. Lee has always been willing to take time on the phone to answer questions and explain things to me, and I am not even a Lexicor software user. (I don't use paint and animation programs, at least not yet.) I believe that I have always gotten honest information and useful guidance from Lee. This kind of superb service makes me want to be a Lexicor customer.

Donald J. Wilhelm
Menlo Park, CA

Thanks for passing on the unfortunate news about William VanNest. The Atari community has lost an excellent programmer. On your second subject, I don't believe we have any reviews scheduled on the Nova graphics cards. These are not the kind of products magazines get as "review" copies. However, perhaps one of our readers who has purchased one of these graphic wonders will write in and tell us all about it. - JW

Toad Support

Dear Current Notes,

I'm finally biting the bullet. I'm enclosing a check for my subscription to *CN*. Usually, I buy it off the rack, which gives me an excuse to go down to Toad Computers to check out all of their stuff. They are also the reason why I'm writing.

I read Frank Sommers' article of July/August 1993 demonstrating Toad Computers to be a successful operation where customer service is not only survival, but just plain common sense. I also remember Dave Small's article from February 1993 called "On-Line Lynching," where he alleges some who were accusing Toad of lowballing their prices for some unfair market share advantage, and then plotting against them, to boot. After reading Mr. Sommers' article, I am prompted to put in my two cents worth, because these critics that Dave Small speaks of show pure ignorance of business practices.

To explain, one major reason anyone goes into business is to make a profit, but will sometimes cut it by a small margin or all together for various reasons. It is true that sometimes a business might have several "loss leader" items–those items sold at a loss–to get people in the doors of the store. This is practiced in most retail stores around this country. Sometimes also, companies are forced to reduce prices to maintain a market share. For instance, many airlines had to slash prices below the profit margin on flights during deregulation. Some survived, others did not. With Toad, however, my experience tells me that one reason they may "cut a deal" with someone is altruistic; they want the user to succeed in the Atari market, and have proven to be trustworthy. With this kind of service, the customer is sure to remember them for future purchases.

Three points here:

1. No one who ever desires to stay in business can cut prices of all products below the profit margin.
2. Remaining competitors are encouraged to provide better service, or consumers may go elsewhere.
3. Going into and being in business involves risk. Some will survive, others will not.

If Toad decided to cut its prices, so what? They are in a free enterprise economy, are they not? As long as they are in business, they will always be under pressure to provide the best service they can, or else their customer base would diminish (which has not happened, observing their growth). Ultimately, who benefits from Toad's "Eastern Front" distributorship? That's right, we do! We benefit from lower prices and better service. Who can complain about that?

On a personal note, I can recall accounts of how well I've been treated on many occasions, especially in regards to my so-called "upgrade attempts." I'm sure Ray has gotten a laugh out of these. My point here is that they have always been fair with me, and do not charge a lot for my stupidity. I can't get that kind of attention in so-called "full-service" stores.

I have been shopping at Toad since around 1987. Before then, there were two vendors I used regularly because they offered a cheaper price. One was a mail-order house, which is now out of business. The other had horrendous service. The guy there wouldn't even greet you when you came in (even though you were the only customer there), plus my wife (who is not a big computer geek like me) couldn't stand to be in the same room with an individual who thought showers and manners were meant only for the privileged. If anything, it goes to prove that in this market, Toad would not put anyone out of business because of low prices, but because of decent service. I stay in the Atari market primarily because of people such as these.

What I can say is that Dave, Jennifer, and Ray go several steps better than most vendors in the computer community in terms of honest, excellent service that go far beyond the price tag, and I can only believe everyone who deals with them receives similar treatment as I. My guess would be that

those who would be out to destroy this free enterprise are angry, bitter individuals who wouldn't be happy no matter what Toad did, and would probably be better off in a socialist regime where they are told how to act, think, and live.

Thank you, Frank and Dave for your honesty. Thank you, *CN*, for an excellent magazine. And thank you, Toad, for being the best you can be.

Thomas J. Henry Jr.
Baltimore, MD

Falcon or Mac?

Dear Joe,

David Barkin (CN Vol. 13, No. 6, July/August 1993, "Thoughts on the Atari Platform; High-End Software Update") almost restored my faith in the new Falcon! I've been struggling to decide between the Falcon and a Mac Centris 650 for my animation hobby.

What David could not have known was revealed by what Ringo of Lexicor said in on-line mag *STReport* #6.28: "..we are updating our keyframe animator *Chronos* so that it will run on the Falcon." I use *Chronos* on my 1040ST for over 80% of my Atari time and have been looking forward to using it on the Falcon with its improved resolution and color gamut. However, now I will not buy a Falcon until *Chronos* is updated.

In the meantime, I do not feel motivated to do any more animation on my ST, and I don't know how long my patience will last waiting for *Chronos*.

Stuart Bonwit
Silver Spring, MD

The Value of CN

Hi,

I like the creative freedom you afford your writers, and your frank approach on the world of Atari. Articles from years ago stay with me: one or two directly computing related, others dealing with the people of the Atari world-past and present. I know names of Atari programmers from both 8-bit and ST-worlds, and respect their achievements. My children will know a name associated with *Fire Bug*, *CAD 3D*, and *Degas*, but when they get the DOS machine they want, will have no idea who coded whatever "works" package they end up using. This is part of the value of *CN*: the news about the people in the Atari world is just as interesting as the purely machine-related articles. Obviously a particular lot, we in the Atari world keep using and supporting the Atari 8-bits and STs we have, appreciate the notable talents who choose to stay with us, and are our best advocates and severest critics.

Another value of *Current Notes* is your advertisers. I've bought from Toad Computers on occasion, and reluctantly cancelled one order when I thought I had a hardware problem; they were as courteous on the cancellation as on the orders, and they are fast on delivery. Some years ago, one of your writers spoke highly of L&Y Electronics, so I placed an order of some significance (to me); one of the hardware items received had an odd (and not obvious) defect. They made sure I had a replacement quickly, and with no hassle. I've ordered from them since, and they, too, continue to be courteous and fast. Rising Star Computers made my 1040 ST well again, at a reasonable price and in reasonable time. I've dealt with several other vendors, some local (scarce these days) and some mail-order, some who have advertised with you and some who have not. I won't list them here, but as I write this, I realize I've not had a single problem with any of the 8-bit or ST hardware and software vendors I've patronized.

I noticed one or two of your advertisers now show DOS equipment in their ads as well as Atari-related equipment. I see this as an opportunity: This allows Atari users an option to explore an alternative platform with vendors they've come to know, and may afford the vendors an option to survive in an Atari business environment that has been savaged. Meanwhile, if it goes well, you can continue to publish because advertisers can supplement revenues and continue to advertise, and I can continue to receive news of Atari and its considerable talent.

So thanks, keep up the good work, let me subscribe for another year, and you let me know what's going on.

Randy Kutz
Howell, NJ

Portfolio Corrections

Dear Joe,

I was surprised and pleased to find my letter from last year in the July issue of *Current Notes*. One note on my comments about converting Portfolio .ADR files into ascii delimited files for loading into database programs. The steps as printed don't quite work. My fault for not typing up my notes more clearly the first time.

The first step in converting the file is to replace the double-returns, which separate the individual cards (records) in the file with some character or character combination not likely to be found *in* the file. The second step is to replace the single returns, which mark the ends of lines on each card (the fields within the record) with a double quote-comma-double quote string (","). The third step is to replace the tokens from the first step with a double quote-return-double quote string ("[Return]"). The final step is to insert a double quote ahead of the first line of the first card and delete the double quote after the last return at the end of the file.

I've also discovered-the hard way-that *STWriter*, while good about replacing returns in search and replace operations, only saves lines up to 160 characters long. Everything beyond gets truncated. So, when making a conversion like this, it is important to remember how long the total record is.

I mentioned I liked the Portfolio's Address application because of its ease for creating mailing label files. The basic .ADR screen is 37 columns wide and 6 lines long, close enough to the size of a standard mailing label as to not matter. I just type up a card the way I want the label to be printed, reserving the bottom (6th) line for assorted mailing codes. Different groups of people get different fanzines. When I'm ready to print up labels, I go to "Card...Select" and enter the mailing code for that fanzine. This acts like a filter so I only see cards from that subset. If I go into any of those cards and delete the mailing code of the search parameter, that card will disappear from the subset once I return to the main screen, but continues to exist in the full file. I can choose "Write Selected" to write those cards to a separate file and enter that file to delete cards from people whose subscriptions have expired. A second code identifies last issue. I can "Select" for that code and "Erase" those cards, save the file again and it's ready to transfer to the ST. There, I take a quick look at in a WYSIWYG word processor (I use *Word*Up*) with the page defined as one inch high (with zero top or bottom margin). Any card with more than six lines will be obvious because it will overflow the page. These can be quickly fixed by hand. Then, I set the page length back to 11 inches for printing and that's it. It may sound complicated, but it's quicker than learning to program *dBMAN*. Of course, if I had more than a couple hundred addresses or did this more than once or twice a year, then using a data base program would make more sense.

Brian Earl Brown
Detroit, MI

Atari Needs? or Wants?

Dear Joe,

I've subscribed to *Current Notes* for several years now and have always found your publication to be superior to the many other magazines I read (including those available at work: *Byte*, *PC Computing*, etc.). It must be a terrible feeling knowing that as a

small businessman, you've excelled while the products you support have nearly been mismanaged into oblivion.

Anyway, I own one of the very first 520ST's that was available with TOS-in-ROM. Remembering back, I ended up cancelling my order at Electronics Boutique because of the ridiculously long back-order time from Atari. I eventually received it mail order through Lyco. Isn't it funny how nothing really changes?

I purchased that particular machine because it was what I *needed*. Over time, my system has expanded to include a color monitor, a double-sided drive, a Monitor Master switchbox and a D&P hard drive enclosure with a 5.25" DSDD drive and an ICD ADSCSI Plus board. I also expanded the system to 2.5 megs of memory and bought a Panasonic KXP-1180 printer. My intention now is to buy myself a new computer to support my new songwriting business (my "day job" is Engineering Manager for a major corporation). I will also finally purchase a hard drive to fit into the D&P enclosure and will pass the Atari 520ST to my son who will give his Apple IIE to his younger sister.

If you'll notice, I'm not prone to go out and buy something just because advertising says I should. I didn't buy a Mega ST because it offered nothing I needed. I was considering a Mega STe because the speed would have been great with *pc ditto* but that machine was forced into oblivion while I was still weighing the pros and cons of the purchase. I will only purchase a new product if I truly *need* it. I believe most Atarians are like that. They're highly intelligent and seem to be at a higher "level" than their MS-DOS Apple brethren. Our machines are *not* toys. The game software is for relaxation. The applications software keeps many of us employed. Or, at least, employed at a higher salary because we somehow make better employees.

I believe the Tramiels merely *want* to be in the computer business. They don't act like they *need* to sell computers. Their excuse of killing off products before launch because customers do not want the machines falls flat. Do market analysis *up front. Know* what your customer wants *before* you commit millions of dollars in people and capital on a project. Witness the Apple Powerbook. It's being hailed as such a system; heck, even Apple is able to do it "right" on occasion. They talked to their customers way up front!! Maybe you can whisper the phrase "Total Quality Leadership (TQL)" in someone's ear sometime. Maybe he/she will do a *lot* of homework and implement it at work. The bad news, though, is that it must start at the top. Darn.

I now *need* a computer that will do music, vocal special effects, and, hopefully, will allow me to retain the majority of my software investment. So far, Atari Corporation has not convinced me with the Falcon that they *need* to be in the computer business. Firing a stellar development team like they apparently had seems more than a little insane. In addition, they don't even have a factory!!! Remarkable.

While I suspect a Falcon will serve me (hardware-wise) as well in the future as the Atari 520 ST has in the past, I'm torn because I know whatever happens that I'm looking at a significant investment in new software. So, do I go for a fine computer (the Falcon) with a company that only *wants* to be in the business or do I finally commit to a Microsoft *Windows* or a Unix-based system? Unfortunately, Atari Corporation isn't helping me with that decision.

It'll be another 2-3 months before I actually purchase the new computer. I would like to buy an Atari. I'll keep you informed.

Steve McGinnis
Brighton, MI

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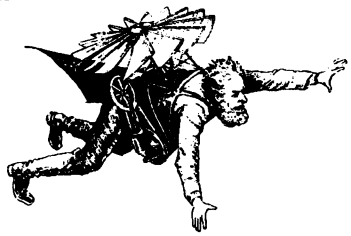

by Steven Kiepe

The Toys of Summer

(and Other Stories)

It's been a great summer this year with lots of free time for the family, minimal intrusion by work concerns, a rewarding, although interrupted, vacation down the East coast, and a few new "toys" for my faithful Atari arriving in the mail. Unfortunately for the Atari computer user, the hoped for resurgence in support for our chosen platforms has not yet materialized.

The Saga Continues

Last issue, I noted the problems experienced by one of Atari's "designated Falcon dealerships" for the Connecticut AtariFest. As a follow-up, by 12 August East Hartford Computer Repair (EHCR) was still unanswered as to whether or not they would be allowed to sell the Falcon. More than two months after the show, the Atari hierarchy still has been unable to establish communications among themselves, their regional representative and the dealership. What is most disheartening is that Atari specifically identified EHCR as a Falcon dealer after receiving tremendous criticism over Atari's failure to allow out-of-state dealerships to sell Falcons at the CT AtariFest. The owner of EHCR has expended both money and effort in preparing to support the Falcon. Further, Atari has likely lost sales (probable new DOS or MAC users) due to EHCR's inability to provide product to potential customers. Bob Brodie, Atari's Director of Communications, is confident that EHCR will be approved; but the question is when? Further, how many other dealers have decided not to become Atari dealerships due to similar problems?

I've made a concerted effort in the last month to identify Atari U.S. and Canadian dealerships. Atari company policy (Garry Tramiel) prohibits providing a consolidated list of their dealers even though that policy has an adverse impact on both developers wishing to market their products and on users seeking dealers. What little we can determine is that there are very few (estimated at less than 50) U.S. and Canadian Atari *computer* dealerships, although there may be another 100 or so music stores that also carry Atari computers. Under the present market conditions, I would have expected Atari to be making every effort to expand their dealer base and also to get some of their growing stock of Falcons into the hands of the computer using populace. Apparently, that is not to be.

As a service to all Atarians, please send us the names of your local dealerships via mail or post it on GEnie in category 15 topic 2. We will compile the list and publish/distribute it periodically.

Apple and IBM Aggressively Pursuing New Sales

While Atari waits for the computer market to come to them, both Apple and IBM are aggressively stalking the market and trying to increase their sales. Apple has rolled out many new varieties of Macintosh computers and has slashed prices tremendously across the board. Apple is even offering direct-mail sales on their Powerbook computers at prices only slightly higher than those of most dealerships. The capability of their new products and the newly competitive pricing has given them a wedge into the sales areas formerly reserved for MS-DOS clones.

At the same time, IBM has launched a new company, called AMBRA, that is marketing a full range of high–performance, low–cost computers. These systems will be built to order with industry-standard compatibility, many built-in extras, and prices that are competitive with the best of the clone manufacturers. AMBRA is offering product *now* and is poised to rapidly adapt to market demands.

Atari Falcon Innovations Losing Ground

It's true that Atari has gotten much good press out of the innovations built into its computers, especially as applicable to the music world. The inclusion of DSP hardware in the Falcon was ahead of most of the rest of the industry. The fact is, however, that the Falcon shows no signs of resuscitating Atari as was hoped. In the meantime, the rest of the industry is marching on, attempting to recover from an industry-wide slump. For example, within two weeks of rollout there are already more Apple Newtons (a handheld personal information device with handwriting recognition) in U.S. circulation than there are Falcons. Additionally, Apple now has *two* high-speed moderate-cost Macintosh computers for sale, which have a 66MHZ DSP chip, and a half dozen new lower cost models. They also have several products, including a modem that makes use of the DSP hardware. Atari's follow-on products are still awaiting rollout.

Atari has shifted from putting all of their hopes for revitalization on the Falcon to letting everything ride on the Jaguar. The Jaguar appears to be a very promising product that could revolutionize the video gaming industry. Further, the unique chipsets that Atari has developed for the Jaguar could theoretically

end up in products produced by other computer manufacturers. Is this good news for Atari computer users? Possibly, if Atari can find a way to blur the lines between multi-media game machines and home computers and can, thus, move game players toward becoming Atari computer users (assuming there is a product to sell them).

German Company to Produce TT Clones?

Reports from Germany (including an article in German computer magazine *ST68000er*) have indicated that GE-Soft of Germany is developing a TT-clone named the ***Eagle***. Rollout is planned for September and initial indications are that, in addition to standard TT features, it may also include DSP and MC68040 chips. Further, this machine is rumored to run at 50MHZ. Reportedly, GE-Soft even sent Faxes confirming the *Eagle's* development to other computer developers such as LogiLex. Bob Brodie was unable to verify these reports but noted that a prospective developer could purchase and modify existing Atari components rather than developing an entirely new product. Some U.S. companies already do this for specialized use. A developer could also purchase Atari ROM's for use in equipment of their own design, or license the ROM coding directly from Atari (as was done by Gadgets and Fast Technologies).

Atari Stock Continues to Post Gains

As noted last issue, Atari stock has been showing a resurgence since the arrival of the Falcon and the pre-rollout announcement of the Jaguar. In the last month and a half, this climb has continued such that Atari stock is hovering between 4 to 4 and 9/16 dollars per share. It would be nice to be able to attribute any of this gain to a hopeful outlook for Atari computer products, but instead (as acknowledged by Bob Brodie in a GEnie RTC) it appears that the rise in Atari's stock value is due to the announcement of the Jaguar's planned year-end rollout and the joint production announcement with IBM.

Squish II Announced

Normally, *Current Notes* includes press releases and other tidbits in the News and Industry column. This month I received late notice of the release of one product so a thumbnail view follows.

Keith Gerdes of Trace Technologies announced the release of *Squish II*, an executable-file compression system for all Atari 680x0 based computers. The original *Squish* was marketed by Double Click Software (now out of business) but Keith has totally rewritten the original program, greatly improving both its function and compatibility. The number of new features is too large to list here, but it is highly complementary to other Trace Technology programs such as *Data Diet* V2 and *Data Rescue*. *Squish II* has a suggested retail price of $40 and can be obtained directly from Trace Technologies or from most Atari dealers.

New Products for All 16/32 Bit Atarians

One of the benefits of being the ST Editor is that I get to see some of the latest products for the Atari as they are submitted to the magazine for review. Although I typically pass the hardware and software on to those more learned and verbose than myself, I usually get to at least take a look at the products as they travel toward a reviewer. This summer I had the opportunity to look at a few novel items that some budding entrepreneurs have brought to the Atari ST marketplace. These include Graphic Effects' *Atari Font Resource Guide* and the *Atari ST Trak-ball* from MTS Creations. Information on how to get these products can be found in the News and Industry column.

The Public Domain/Shareware Font Bible

The *Atari Font Resource Guide* is a compiled listing of fonts for *Calamus* and for programs that use Adobe Type 1 fonts (*PageStream* v2.x). This bound guide features printed samples of over 350 *Calamus* fonts and 170 Type 1 fonts. The fonts listed are public domain and shareware fonts, many of which are available on the on-line networks. The advantage to this is that instead of downloading a font (usually at a fee or at least thecost of a phone call) and then having to determine the desirability of a particular typeface, you see the fonts *before* you download them. For under $15 you get a printed record of a wide spectrum of fonts for use with your desktop publishing programs.

The *Font Resource Guide* doesn't stop with the manual. You can order the fonts at $6 or less *per disk* with each disk holding 15 fonts of your choosing. I have a huge selection of type 1 fonts for *PageStream*, both commercial and public domain/shareware, yet I still found 45 more fonts to add to my collection. A quick letter and small check later and I received three more disks full of fonts, which nicely rounded out the holes in my collection. Bought in bulk, the deal is nicer still. This is a highly efficient and cost-effective way to build your font collection. Additionally, the *Calamus* fonts can be converted to GDOS format by using COMPO's *C-Font Converter* program.

High Quality Low Cost Track-Balls

The Atari *ST Trak-ball* is an interesting solution for those who are uncomfortable with or don't have the desk space to use a mouse. It also offers a solution for those "south-paws" who are tired of living in a right-handed world. Track balls aren't new to either the Atari 8-bit or ST world, but they have tended to be rather costly. I own two different ST track balls, one made by Kraft and the other marketed by Best Electronics. Both have their good and bad points not the least of which is their retail price of about $50.

MTS's Trak-ball brings that initial outlay down to around $16 and doesn't give up much in the process!

The MTS Trak-ball is a modified Atari CX-80 track ball that comes in several configurations. The version I tested has the option of having the mouse buttons on top or bottom of the assembly and swapping their functions. My favorite configuration has the left and right buttons on the lower edge of the assembly with the ball in the middle. This allows you to manipulate the ball with your fingers while keeping your thumb over the "left" button and your little finger in close proximity to the "right" button. Additionally, there is a switch that simulates holding down the left button–very useful for dragging objects, highlighting text, and drawing lines in various paint programs. The buttons and layout can be ordered in virtually any desired configuration and the price, especially while discounted (through Oct 15) is exceptional, even compared to the prices of bargain basement mice.

Besides price, the MTS Trak-ball has several advantages over the Kraft and Best units. Like the MTS unit, the Kraft track ball also has the buttons positioned to allow ball handling with the fingertips and buttons with the thumb/little finger. The Kraft ball is very usable by a southpaw but the button functions cannot be reversed. Additionally, the Kraft unit tends to be rough, occasionally erratic, and requires very frequent cleaning (2 different units tried). On the other hand, the Best track ball is a very high quality unit, but the layout is quite different. The ball is manipulated with the thumb which takes a significant amount of time to get used to and does not allow for as fine manipulation as the other units. The left and right buttons are well placed to be actuated by the fingers of the right hand, but the entire unit is near unusable by a left handed individual.

The MTS Trak-ball, with its multiple configurations, resolves all of these problems. Like any track-ball, it will occasionally require cleaning; but it does not appear to be as susceptible to gumming up as the other units. It is a high quality unit but is significantly larger than the other track-balls: twice as large as the Kraft and three times the size of the Best models. The MTS model is delivered with a disk of public domain/shareware utilities that enhance your ST's operation. Overall, it is a great value for the money and should be a welcome addition to any Atari computer layout.

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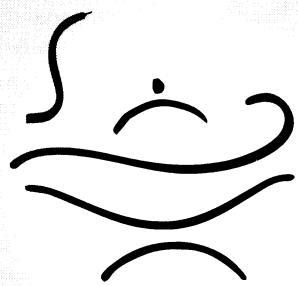

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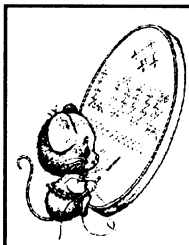

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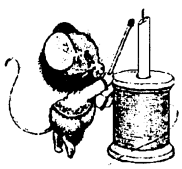

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GOOD NEWS AND BAD NEWS

Atari Industry News and Announcements

New Products/Upgrades

GRIBNIF Announces *Geneva* MultiTasking Environment

After almost two years of development, Gribnif Software is proud to announce their newest software offering for the Atari ST, STE, TT/030, Falcon, and compatibles.

Geneva is a Multitasking Application Environment (Multitasking AES) that allows any Atari to Multitask unlimited GEM applications*; Load and unload unlimited desk accessories*; Put applications and accessories to "sleep," keeping them from using valuable CPU time, temporarily closing all their windows; and Run MultiTOS applications (it supports the new AES 4.0 calls).

* Subject to available memory

Geneva also adds the following features to the Atari: Task Manager; Tear-off menus; 3-D buttons and 3-D window gadgets; Keyboard control of drop-down menus; Ability to run single tasking applications; Enhanced compatibility when compared to Atari's MultiTOS; Keyboard control of window gadgets & dialog buttons; Ability to change mouse shapes, including mouse animation support; MiNT compatibility for MiNT applications; and Enhanced file selector.

When compared to Atari's *MultiTOS*, *Geneva* offers smaller memory requirements (less than 125K of RAM when active), faster application speed, faster window redraw and window gadget operation, and higher compatibility with older applications.

Geneva does not include or require a "desktop." However, for convenience, a desktop replacement is recommended. *Geneva* will work most *MultiTOS* compatible replacement desktops and file launching shells. Also, a patch is included with *Geneva* that upgrades *NeoDesk 3* to version 3.04, allowing it to work correctly with *Geneva*.

Currently, *Geneva* does not include MiNT, the TOS enhancement written by Atari for use with *MultiTOS*. *Geneva* is compatible both with the freeware version of MiNT and Atari's commercial version.

Geneva is slated for release in North America around September 1st, 1993. Foreign versions, including a German version, will be available shortly thereafter. *Geneva* will be available commercially from your local dealer for $99.95 and will include the new *NeoDesk 4* desktop replacement. *Geneva* will also be available by itself (without *NeoDesk 4*) for $69.95. *NeoDesk 4* will be available separately for $69.95.

[Gribnif Software, P.O. Box 779, Northampton, MA 01061-0779 Tel: (413)247-5620 (10am-6pm, EST) Fax: (413)247-5622 (24hrs). E-mail: GENIE (GRIBNIF) or CIS (75300,1131).]

Branch Always Announces Gemulator 3

Branch Always Software announces Gemulator 3.0, the Atari ST emulator for PC compatibles. With standard features such as TOS 2.06, SuperVGA color graphics, 1.44 megabyte floppy disk support, and expandability up to 8 megabytes of RAM, Gemulator 3.0 turns a plain 386 or 486 PC into an awesome Atari ST clone.

Gemulator 3.0 will be released on September 18th 1993, at the Glendale Atari Show in Glendale California. The price remains at $229 U.S. complete and will be available from various Atari dealers.

Gemulator 3.0 consists of a plug-in card, TOS 2.06 ROMs, Atari ST emulation software, Atari 800 emulation software, a screen accelerator, benchmarking software, and some public domain and shareware Atari ST programs. Simply plug the card into any unused 8-bit or 16-bit card slot and run the emulation software. Go from DOS to GEM in seconds!

Any PC or laptop meeting the following requirements can run Gemulator 3.0: 1) a 33 Mhz 386 processor (or faster); 2) at least 4 megabytes of RAM; 3) DOS 5, DOS 6, Windows 3.1, or OS/2 2.1; 4) a VGA card and VGA monitor (SuperVGA is optional); 5) one empty 8-bit or 16-bit ISA card slot; 6) a hard disk and at least a 720K 3.5" floppy disk. An AdLib or Sound Blaster sound card is optional and a mouse is also optional, but recommened for use with GEM based programs

The following features of the Atari ST / STE / Mega ST are emulated by Gemulator 3.0: 1) 3 graphics modes (320x200, 640x200, and 640x400); 2) a 4096 color palette; 3) one or two floppy disk drives; 4) support for up to 4 hard disk partitions; 5) one serial port and one parallel printer port; 6) 3 voices of sound; 7) mouse and keyboard (including numeric keypad); 8) real time clock; 9) ROM based cartridges; and 10) 512K to 8 megabytes of RAM

Gemulator 3.0 also adds these enhancements not found on your standard ST: 1) 640x480 color graphics (with any VGA card); 2) 800x600 color graphics (Video7, ATI, Tseng, or VESA SuperVGA card); 3) maximum ST memory is 8 megabytes, double the limit of an ST; 4) 1.44 meg high density floppy disks are supported; and 5) support for multiple TOS ROMs

About the only things that Gemulator 3.0 does NOT support are MIDI ports, copy protected disks (typically games), and very machine specific or timing dependent software such as Spectrum 512.

With 8 ROM sockets on each Gemulator card, there is plenty of room for you to plug in other versions of TOS and cartridge ROMs. If you have particular software that does not run with TOS 2.06, you can easily plug in TOS 1.0 or TOS 1.4

and use it instead. Or if you have cartridges like Deskcart, simply remove the ROMs from the cartridge and plug it into the Gemulator card. Gemulator 3.0 can automatically detect up to 4 cards, providing you with a total of 32 ROM sockets!

On fast 486 machines, Gemulator 3.0 runs 2 to 3 times faster than the ST. It scores a GemBench speed index of over 270% running on a 66 Mhz 486 based PC. That's without the use of accelerators such as Warp 9 or NVDI, which are supported on Gemulator and give similar speed improvements as on a real ST. If you don't have a copy of Warp 9 or NVDI, don't worry. Gemulator 3.0 comes with its own custom screen accelerator which runs even fast (it is similar to our Quick ST accelerator but optimized using 386 machine language).

In addition to the 3 standard Atari ST screen resolutions, Gemulator 3.0 also supports 4 VGA screen resolutions: 640x480 monochrome, 640x480 16 colors out of a 4096 color palette, 800x600 monochrome, and 800x600 16 colors out of a 4096 color palette.

Gemulator 3.0 now supports the serial port allowing you to run your favorite Atari ST terminal software with your modem. Take advantage of such features as auto redial, type ahead buffers, and editable capture buffers, features not found in most PC telecommunications software.

Gemulator 3.0 emulates the Atari ST's 3 voice sound by using your PC's Sound Blaster, Sound Blaster Pro, AdLib, or AdLib compatible sound card. Simply have a sound card installed and Gemulator 3.0 will use it.

Gemulator 3.0 reads your Atari ST floppy disks directly, and now gives your Atari ST software access to all of your PC's hard disk drives. Simply use your existing Supra or HDX hard disk driver to activate the hard disk support. And using the HINSTALL utility (which is part of the HDX utilities), you can even autoboot from the hard disk allowing you to put your AUTO folder programs and desk accessories on the hard disk.

And if you're a die hard Atari 800 user, you'll be glad to learn that Gemulator 3.0's improved compatibility now allows you to run the ST Xformer emulator on it. Run Atari BASIC, DOS 2.5, and any other program that is supported by ST Xformer. We include a free copy of ST Xformer 3.0, an upgrade from ST Xformer 2.55, which contains several bug fixes and speed improvements.

Interested in finding out even more about Gemulator 3.0? We now have a free 5 page newsletter which describes more of Gemulator 3.0's features in detail. To receive the newsletter, write to: Gemulator 3.0, c/o Branch Always Software, 14150 N.E. 20th Street, Suite 302, Bellevue, WA 98007. If you wish to call Branch Always Software, we may be reached at 206-885-5893. This is a voice number before 2pm eastern time and a fax number at other times.

chroMAGIC Releases Falcon RAM Expansion Board

chroMAGIC is proud to announce the immediate availability of the *gizWORKS RAM Gizmo*—a RAM expansion board for the Falcon030 that uses standard SIMM memory modules. The board plugs into the Falcon030's internal ram expansion socket (no soldering required) and fits neatly inside the case. It allows the use of 256k, 1 Meg, or 4 Meg SIMMs to achieve memory configurations of 1, 4, or 14 megabytes.

chroMagic Introduces Pianistics 1.20

chroMAGIC Software announces the availability of *Pianistics 1.20*, a GEM based piano instruction program for Atari ST/TT/Falcon computers. *Pianistics* is a tool to aid in the technical mastery of scales/chords and gives insight into jazz improvisation, chord substitution and other applications of music theory and also provides performance/dexterity drills. The new version is completely MultiTOS compatible and will work in most ST/TT/Falcon screen resolutions and should work with any 3rd party graphics card that has a VDI driver.

chroMAGIC Software Innovations' product line currently consists of: *Guitaristics* V1.92, retailing for $69; *Pianistics* V1.20, retailing for $79; and *RAM Gizmo* retailing for $99. All products listed are available NOW! For more information please contact chroMAGIC Software Innovations at the address below or via: Delphi (JIMCOLLINS) or GEnie (J.COLLINS22). chro_MAGIC Software Innovations, 516 North Jackson, Joplin, MO 64801; Phone (417) 623-7393.

NewSTar Announces STraight FAX! 2.0

With the release of *STraight FAX! 2.0*, Class 1 and Class 2 FAX Modems are now fully supported. We've also added features to make *STraight FAX! 2.0* a joy to use. Like a Quick Dial feature, for sending FAXes to locations that you don't plan on FAXing every day. Or you might like the new STraight FAX! Manager for seamless, system wide FAXing from your favorite applications, including *Pagestream*, *Calligrapher 2/3*, *That's Write 2*, *Calamus*, and *Speedo GDOS* based applications such as *Atari Works*. If you are using *MultiTOS*, you can have *STraight FAX!* sitting by idle and ready to send the generated FAX without quitting the application.

STraight FAX! 2.0 will print Received FAXes to any GDOS supported printer. FAXes can be exported to Image, PCX or Encapsulated PostScript (EPS) formats. *STraight FAX! 2.0* will send ASCII Text, Mono Image, High Rez Degas/Degas Elite, Mono PCX, GEM Metafiles, First Word, First Word Plus, Word Writer ST and FAX files and can broadcast those FAXes to up to 100 Destinations. FAX transmissions can be scheduled for a later time (up to a year in advance). Manual Send and Receive features allow initiation of FAX Send or Receive from a voice call. The program also supports Supra FAX Modem Caller ID and can be used to reject incoming "Junk" FAXes from a user defined list of Bad FAX callers. *STraight FAX! 2.0* supports Supra Silent Answer to allow single line Voice/FAX sharing.

The program allows viewing of up to 7 Image, Degas, PCX, GEM Metafile or FAX files at a time, each in a GEM window. Enhanced user interface features on Falcon TOS 4.02+ and MultiTOS such as 3D buttons and sliders and Hierarchical drop down menus are supported. Enhanced FAX Send and Receive Logs now contain additional information.

STraight FAX! 2.0 works with all Atari ST/TT/Falcon computers with a minimum of 1 Megabyte of RAM. Two or

more Megabytes of RAM are recommended for printing and viewing FAXes due to the large size of uncompressed FAX images. *STraight FAX!* will operate with TOS 1.00, 1.02, 1.04, 1.06, 1.062, 2.05-2.06, 3.05-3.06, 4.01-4.04 and MultiTOS. TOS 1.04 or higher is recommended due to memory allocation problems on earlier TOS versions.

Printing FAX documents and importing GEM Metafiles requires a version of GDOS and an appropriate GDOS printer driver. The original Atari GDOS (and compatibles), Font GDOS, FSM GDOS, and Speedo GDOS are supported. Font GDOS or Speedo GDOS are recommended. Importing GEM Metafiles requires the MEMORY.SYS GDOS driver to be installed as device number 61. Speedo GDOS is required to render text objects in GEM Metafiles.

STraight FAX! has a suggested List Price $109.95 (US) Registered STraight FAX! users can upgrade to v2.0 by sending in their original master disk and $25 (US). Registered users who have purchased *STraight FAX!* v1.07 on or after June 1, 1993 can upgrade to v2.0 by sending in their original master disk and $20 (US). Upgrade price includes v2.0 master disk, v2.0 manual and shipping within North America. Upgrade orders outside of North America, please add $5 (US). Major Credit cards accepted. Please allow 3-4 weeks for delivery.

Mail upgrade orders to: Toad Computers, STraight FAX! 2.0 Upgrade Offer, 570F Ritchie Highway, Severna Park, MD 21146. For more information: Voice: 410-544-6943, Fax: 410-544-1329, BBS: 410-544- 6999. GEnie: C.S.SMETON; CIS: 73047,2565; Internet: c.s.smeton@genie. geis.com or 73047.2565@compuserve.com

CodeHead Software Announces Imagecopy 2

The Essential Image Utility for Atari Computers. This amazing utility was written by Jeremy Hughes for ST Club in England. As with other products imported by CodeHead, *Imagecopy 2* meets the high standard of excellence which CodeHead requires of its products.

Imagecopy 2 Features include:

- Copy images from the screen in any ST, TT, or Falcon video mode. Images can be copied by pressing Alt-Help, and a flexible rubber-banding system allows images to be selected with a fine degree of accuracy. *Imagecopy 2* works with standard and large screens, including virtual large screens.
- Convert images to different formats. *Imagecopy 2* reads and writes images in a wide range of formats, including Art Director, Degas, GIF, IFF, IMG, extended IMG, MacPaint, Neochrome, OS/2 bitmap, PC Paintbrush (PCX), RSC free image, Spectrum, Targa, TIFF, Tiny, and Windows bitmap.
- View images in any ST, TT, or Falcon video mode. Color-mapping and dithering are used to display images in video modes that contain fewer colors. Up to six images may be displayed simultaneously in GEM-window or full-screen display modes.
- Print images and screen dumps in color or black and white on a wide ranges of printers, including 9-pin and 24-pin dot-matrix printers, Bubblejet printers, Deskjet and Laserjet printers. (Atari Laser printer is not yet implemented.) *Imagecopy 2* can print true-color images containing over 16 million colors, and offers print scaling, comprehensive color controls, and a choice of halftone screens.
- User-friendly GEM interface, including window menu, pop-up menus, and color sliders. Can be used as an accessory or stand-alone program.

Imagecopy 2 is available now, in stock, ready to ship. Suggested retail price is $39.95. For more information, contact your local dealer, or: CodeHead Software, PO Box 74090, Los Angeles, CA 90004; Tel (213) 386-5735, Fax (213) 386-5789, BBS (213) 461-2095.

DSA Announces DEV_SHELL Programming Tool

DSA, the developers of the popular *GP_Edit Library* and the creators of the *GP_Graphics Engine*, announces *Dev_Shell, the* developer's shell for GFA BASIC programming.

Dev_Shell is an interactive programming shell that totally replaces the menu.prg that came with your original *GFA Basic* program disk. *Dev_Shell* uses a splendidly easy 3D button point and click interface that allows you to edit and compile your programs easier than ever before. What makes *Dev_Shell* so powerful is that the interface has been streamlined to provide a fast and efficient environment. Virtually all of *Dev_Shell's* features are easily accessible from one user screen. Here are some of the reasons why you'll appreciate *Dev_Shell*: Custom configure up to 5 GFA source files per config file; Load and save different *Dev_Shell* configuration files; Organize your config files by subjects! (Games, utility, etc..); Each .GFA source file has its own set of compiler options; Include up to five different .object files for linking; Quick compile option. (Just like the old menu.prg.); Execute eight of your favorite tools with the click of a button; Further install and execute up to five function key programs; Runs in all three ST\STe resolutions automatically ... without tricks; Advanced WAIT (Insert disk) support included for floppy users; Access to acc's and disk operations, Copy, Move, Kill, View; and 100% TOS compatible from 1.0 to 2.06.

DEV_XREF, a cross reference program that allows you to get access to program information when it comes time to debug your code, is included with the package. You can even optimize certain sections of your code. Also included is DEV_DEBUG.LST, a real time debugger that you merge into any GFA BASIC 3.5/3.6 source code. At the press of a key sequence you can gain access to a debugging menu from within your GFA source code running in INTERPRETER mode. Print out variables, set break points, change program speed, etc. A *vital* tool for novice and pro users alike. Also included is a vast collection of PD and Shareware GFA source code and utilities, over 1.5 megs of data compressed in .LZH format.

Dev_Shell has a suggested retail price of only $29.95, available through fine Atari dealers everywhere, or you may send a check or money order for $29.95 in US funds to DSA (Texas residents please add 7.5% tax). Please allow 7-10 days

for your package to arrive. As long as you are in the USA or Canada we will pay shipping. Other countries please add shipping costs. Thank you. (DSA, Attn: Dev_Shell, 5601 Ammons, Haltom City, TX 76117)

Atari Calamus and PostScript Fonts Guide Released

The *Atari Font Resource Guide* is a new and intelligent way of ordering shareware and public domain fonts. This guide displays over 350 Calamus fonts and over 170 PostScript type 1 fonts for PageStream, Windows, MS DOS and the Amiga. Using Compo's C Font (not included), all Calamus fonts can be converted for GDOS applications.

The *Atari Font Resource Guide* retails for $14.99, which includes a credit of $3.00 against the first order. A user identifies the fonts desired from the font guide and then selects 15 individual fonts for inclusion on each disk. Prices are as low as $3.50 *per disk* when ordering in bulk. You choose which 15 fonts you desire on each disk so you don't pay for poor quality fonts or duplicates of those you may already have. You save time and money on downloading fees. Quarterly font update listings are free.

Don't waste your time downloading fonts identified only by a cryptic name; open your horizons to a full range of public domain and shareware fonts and see exactly what you're getting. [*Atari Font Resource Guide*, Graphic Effects, 971 Wilson Boulevard, Central Islip, NY 11722]

KORDES Development Releases Mathematics Tutor

KORDES Development is proud to announce the release of the *Math Quiz Machine* for the Atari ST/Falcon. The *Math Quiz Machine* is a powerful tool for both teachers and parents. It allows quick and easy construction of almost any math worksheet.

Its many features include: Addition, Subtraction, Multiplication, Division and mixed worksheets. The *Math Quiz Machine* prints from 16 to 100 problems per page, Key printing, MixUp Mode (scrambles problems on each page), Random problem generation based on user defined parameters, a problem editor, optional problem numbers, optional name line, optional message line, output to printer or ASCII file, easy to use point and click interface and more...

The *Math Quiz Machine* is available at your local Atari dealer for the suggested retail price of $34.95. You may also order it from Systems For Tomorrow, 1314 South Noland Road, Independence, MO 64055 or call (816) 252-4738. For additional information write to KORDES Development, P.O. Box 3034,Independence, MO 64055, or call Systems For Tomorrow.

CWest Announces WALZ

CWest has announced the availability of the Atari ST/STE/TT and Falcon computer breakout-type game *WALZ*. Sit back and get comfortable before you play this game. You might not be moving from your computer for awhile, because once you start breaking bricks, you'll be hooked! *Walz* will challenge your reflexes and resolve in a test of coordination and quick thinking. However, the greatest challenge of all will be keeping yourself from playing it again and again. *Walz* has over 25 levels of play, DMA sound, full GEM compliance, MultiTOS aware, and never presents the same game twice! CWest is planning a companion product to *Walz*, scheduled for release this fall, which will allow you to create your own customized levels of the game.

[*Walz*, MSRP: $29.95. For further information contact CWest, PO Box 12345, San Luis Obispo, CA 93406 Phone: 803-546-9036; Fax: 803-541-1623.]

MajicSoft Announces Buttonz Awari!

Buttonz Awari is a new strategy game based on a three thousand year old African classic. It comes from a group of games called Mancala, in which seeds are moved from cup to cup around a board in an attempt to capture opposing seeds. Traditionally played by primitive tribesman, the strategy of these games is highly complex and demands a fine mathematical calculation of possible moves and their results. We use the Atari ST computer to bring digital magic to the game. The game has 3D buttons (hence the name *Buttonz Awari*) and instead of using cups to hold the seeds, we use digital registers to hold numbers.

The game offers two different variations and three different artificial intelligence levels for the computer player. It also allows for two player mode with either the mouse, joysticks, or keyboard. Tournament mode allows for a match type game to be played. *Buttonz Awari* also allows modem and null modem support, which allows friends to play the game remotely.

Buttonz Awari will be released in two different packages. A single version game, with one disk, an owners manual, and a warranty card, will sell for $39.95. A double version, called the "Buddy Pack," will have two of everything and is designed for friends who wish to go in halves to purchase the game together to save money. The Buddy Pack will retail for $59.95. *Buttonz Awari* is available now in fine dealers everywhere or you may order it directly from MajicSoft Inc, 348 Meredity Square, Columbia SC 29223. Order line: 800-845-4070, Tech Support: 803-788-8177. If ordering by check, please include $5 to cover the cost of shipping and handling. (A demo version of *Buttonz Awari* is available on CN Library disk #830).

Migraph Announces ColorBurst Color Hand Scanner for Atari Falcon 030

Migraph, Inc. announced the Migraph ColorBursttm, the first color hand scanner for the Atari Falcon 030 system. According to Kevin Mitchell, president of Migraph, "The ColorBurst offers the best value for the money as a scanning solution because it's three powerful scanners in one. The ColorBurst can scan up to 262,144 colors, 64 true greyscales, and monochrome line art for Optical Character Recognition (OCR). Images from the ColorBurst are perfect for desktop publishing and video applications."

The Migraph ColorBurst has these powerful features:

- ★ Exclusively for Atari Falcon 030 computers.
- ★ Five scanning modes: Super Color Mode (18-bit/262,144 colors), Color Mode (12-bit/4096 colors), Greyscale (64

levels), Color Dither Halftone, and Monochrome/line art (text).

★ Six scanning resolutions: 50-400 dots per inch (dpi) based on the current scanning mode.

★ 64 true greyscale levels can be scanned at 400 dpi.

★ Migraph ColorKit software scans, displays, and saves color, greyscale, and monochrome images in TIFF, IMG and IFF file formats.

★ Migraph OCR Jr. software for scanning and reading text; Omnifont-based, trainable OCR.

The included *ColorKit* software allows users to display greyscale and color scans using the new 256 color and true-color display modes on the Falcon. This enables desktop publishers, video production and home users to push the limits of their Falcon systems.

The ColorBurst for the Falcon is bundled with Migraph *OCR Jr*, Migraph's *Omnifont Optical Character Recognition* program. The price is $599 U.S. list. The Migraph ColorBurst runs on Falcon computers with 4MB of RAM (hard disk recommended). For further information on Migraph and its products, please call 206-838-4677 or fax 206-838-4702. Migraph, 32700 Pacific Highway S. Suite 14, Federal Way, WA 98003.

MTS Creations Offers Low-Cost Custom Trackballs for Atari

MTS Creations has begun marketing a line of high-quality, low-cost trackballs for use with the Atari ST/STe/TT/Falcon lines of computers. These trackballs are modified *Atari CX-80 Trak-Ball* units that can be custom configured for left or right handed users, inverted button configurations, dual cable units for combination trackball-joystick use, and other configurations. They can even replace the standard trackball with a genuine billard ball!

MTS Creations is offering blow-out prices on their custom trackball systems until October 15, 1993. These special prices are less than *one third* the price of comparable units from other manufacturers. After the sale ends, the prices will still be less than half those of their competitors. During the sale, standard trackballs configured for the ST series are only $15.95.

MTS Creations also markets an updated version of *Font Craft*, an 8-bit font editor. For the Atari *Lynx* they are importing high capacity 700 mAH AA size Nickel-Cadmium batteries from Germany. These batteries last 40% longer than standard NiCads, thus making them the ideal rechargeable power source for the Lynx or other AA battery using electronics.

For information on product availability and pricing, contact: MTS Creations, P.O. Box 56762, Chicago, IL 60656; Phone (312) 763-1822.

EdHak Version 3.0 Released June 13, 1993

Features now available in the latest version of this accessory editor include:

★ Fully MultiTOS/Falcon TOS compatible

★ Allow "kwiksend" from PRG (only useful for MultiTOS)

★ Fully resizable/movable window; Can now move window off bottom and right edges of screen

★ Horiz scroll while typing only shifts 10 cols, instead of full window

★ Greatly expanded Block handling options

★ Use any of the three system font sizes in most resolutions

★ Enhanced scrolling to data outside edit buffer

★ Enhanced text Macro operation

★ Allow saving buffer=›ram block to any RAM address

★ Limit how much scrolling will happen after releasing arrow key

EdHak 3.0 also comes with a new version of *Diary*, the handy note taker, that is written totally in assembly language and takes up a mere 22K of RAM. *Diary* now even includes *EdHak's* unique "Kwiksend" function (send a block to another open application) and *EdHak's* interface for use as an editor for other applications (such as used by *QuickCIS*, the CompuServe navigator). For programming info on this interface contact Clear Thinking.

If you wish to check out *EdHak 3* before buying or upgrading, get the demo version, ed3dem.lzh, which is fully functional except for saving files or new configurations. *EdHak 3* still lists for just $29.95. Registered users of versions 2.30-2.37 can upgrade for $10. For prior versions, the upgrade fee is $15, which includes the printed manual of v 2.3.

[Clear Thinking, 2753 Plymouth Rd, Suite 137, Ann Arbor, MI 48105; GEnie E-Mail: C.HARVEY; CompuServe E-Mail: 73047,600; Modem (Clear Thinking BBS): 313-971-6035; Voice: 313-971-8671]

DMC to Release Calamus SL Upgrade

DMC Publishing is pleased to announce a new upgrade to *Calamus SL*. The overall performance of *Calamus SL* has been dramatically improved. In addition, we are very happy with the significant features that have now been activated as well as the new features and modules that we are including.

The new version of *Calamus SL* includes:

★ An upgraded Text Module now includes both an activated Anchor Frame function and an activated Leader Tab function that allows the use of any character as your assigned Leader Tab character. The module also includes an improved Spellchecker and separate Hyphenation dictionaries, improved Vertical Text Alignment and improved M-Space handling. New features include the ability to insert and search Comments, manual kerning, inserting text style and text ruler information.

★ The new Rotate module can rotate Raster Graphics in any degree with or without anti-aliasing. If you rotate a graphic that has straight lines, anti-aliasing will smooth the settings and remove stepping.

★ The new Color List Converter module generates a color list from imported graphics. It can also generate a list from free colors designed within the existing document.

★ The new Compression Module saves you storage space by compressing bitmap images within your document.

★ The new cymkswap.cxm module swaps color planes.

★ The new Linearity Module sets color values optimized for your particular printer.
★ The Raster Generator module can now set Raster caches.
★ New drivers with this upgrade for *Calamus SL* include: GEMIMG export, CVG export, a RAW import driver for bit planes, an improved TIFF driver, an improved TARGA driver, an RPS driver for *Repro Studio* and an improved GEM Metafile driver.
★ Set Layout/Working Area now activates the automatic generation of both registration marks and crop marks, as are color plane names, double-page overlap, user definable settings and master page printing.
★ The new selectable document option now allows you to click on the document you wish to access from the displayed list of all documents present in memory.

The cost for all of the above, the latest and much improved *Calamus SL* as well as all of the new modules on three disks, is US $75.00 or $95.00 CDN, which includes shipping and insurance. Prices and configurations are subject to change without notice.

For further information or to order by telephone using your VISA or Mastercard please call DMC Publishing at VOICE 416-479-1880 or FAX 416-479-1882.

ICD Announces SCSI Pro Utilities

ICD SCSI Pro Utilities™ was designed to provide all Atari owners a choice of SCSI and IDE peripherals with the hard disk performance and dependability that they can expect from ICD, the leader in Atari host adapters on the Atari ST.

ICD SCSI Pro Utilities is a complete software tool kit designed for anyone who owns a hard drive on an Atari computer. This unprotected package consists of the ICD hard drive software that was previously available only in a protected form, a new comprehensive version of *Cleanup ST*, as well as other powerful new utilities. The software is supplied in a packed format on two double-sided diskettes along with a 75-page manual.

The core of *ICD SCSI Pro Utilities* is the famous *ICD Hard Drive Software*. *ICDBOOT* is a fully configurable, high performance hard disk driver. It includes read and write-back caching with variable buffer and block sizes, write-back delays, user selectable boot partitions, the ability to skip SCSI IDs or partitions at boot time, smart removable media support, Floptical support, along with many other useful options.

HDUTIL is the utility program that allows the user to select the boot partition, to zero or wipe a partition if desired, and to map out bad sectors. *HDUTIL* is also the main configuration utility which easily and logically allows the user to set the many options in *ICDBOOT*, the hard disk driver.

ICDFMT is the preparation utility which is used to set up a new hard drive or to change the existing partitions on a used hard drive. It also allows the naming of partitions and editing of partition information. *DESKTOP* allows the swapping of partitions with drive letters.

SCSI is an advanced command tester and sector editor for SCSI and IDE devices. This powerful software offers the tools to troubleshoot SCSI and IDE device problems, to read, edit, and write sectors directly to disk, and to perform any other function using the SCSI command set.

Cleanup, which was once sold as a separate program, will analyze a diskette, hard drive partition, or ramdisk, to determine if it has been damaged and, if so, how to correct it. *Cleanup* will detect and correct a wide variety of problems in the File Allocation Table (FAT) and in the directories.

ICD SCSI Pro Utilities also includes an ingenious CD-ROM driver for ICD Advantage/AdSCSI/Link SCSI host adapters and SCSI-2 CD-ROM drives. This driver is MinT/MultiTOS compatible, and a copy of *MinT* is included on the disk. The suggested US retail price for *ICD SCSI Pro Utilities* is $49.95. It is available directly from ICD or from better Atari dealers everywhere. For further information, contact ICD Press Relations in the U.S. by phone at (815) 968-2228 extension 222 or by fax at (815) 968-6888.

Lexicor Announces Imminent Release of NOVA Stellum

Lexicor Software Corporation is proud to announce *NOVA Stellum* in conjunction with the existing *Phase-4*. This series of products provides capabilities unprecidented on Atari computers. *NOVA Stellum* will consist of basically new and upgraded products. These products are:

Phoenix (upgraded) now comes with bump mappings, individual shadow processing, completely GEM-Based interface, multitasking support (i.e. rendering in the background), the ability to link with a new program to render *Chronos* animations and more.

Prism Paint Upgrade, (essentially virtually *Prism Paint 2*) now comes with true color support, extended functions for airbrush, is totally GEM-compatible, concentrated on single frame editing and modular design to include animation as well. This product is near release.

Meridian, a paint program only, is a Falcon-specific program, but it will run on the NOVA Card. It will be released soon.

Relativity, the program that links your *Chronos* animations into *Phoenix* (new version) and renders them in TrueColor, is nearly ready for release.

Prism Builder, the stand alone animation builder, which is also to be released very soon, will build animations from your series of GIF's and save it as the popular FLI standard, or FLM for those who wish to use it in *Prism Paint* 1.5b.

Chagall, is a professional paint, editing, retouching program. It has features and brush types that no other Atari Product in the artist sector has and is fully GEM-based and VDI compatible. It is available in three versions: the hobby version, which is powerful but limited, the Professional Version, and the Super user version, which supports 32bit color as well. The hobby version is available for under 200 U$D! Beautiful interface, complete English doc's, revolutionary brush functions, designed for 15b-it and above.

Pricing and other information will follow soon. Lexicor Software is proud to announce this new series and hopes as always that we can satisfy the needs of our customers. Welcoming: *NOVA Stellum* (The Impressionist Tools) Think NOVA!

Industry Update

ATARI and IBM Announce Joint Manufacturing Contract for the Jaguar Multimedia Entertainment System

June 28, 1993, Sunnyvale, CA. Atari Corporation announced today that it has contracted with the IBM Corporation's Charlotte, North Carolina, facility to manufacture the Atari Jaguar, Atari's new 64-bit multimedia entertainment system. IBM's multi-year contract is valued at $500 million.

The Atari Jaguar, to be made in the United States, is an interactive multimedia entertainment system that features over 16 million colors in 24-bit true color graphics and produces shaded 3-D polygons for manipulation in a "real world" in real time. A 32-bit expansion port will allow for future connection into cable and telephone networks, a digital signal processing port for modem usage and connection to digital audio peripherals. The Jaguar will also feature a double-speed compact disc peripheral.

In addition to assembling the Jaguar, IBM will be responsible for the component sourcing, quality testing, packaging and distribution. The Jaguar, announced on June 3, is based on an Atari designed proprietary 64-bit RISC processor that features four times the technology currently seen in the marketplace today. The sound system is based on Atari's proprietary high-speed, Digital Signal Processor dedicated to audio, which can produce CD quality sound.

The Atari Jaguar will be available on a limited basis in the fall, focusing on the New York market. A national roll-out is expected next year and the Jaguar will retail for approximately $200.

GEM-View Update

As reported in the June *Current Notes*, after a highly volatile controversy erupted on-line over alleged distribution agreements, Dieter Fiebelkorn, developer of the GEM-View graphics file utility program announced that neither Lexicor nor CyberCube would be given exclusive U.S. marketing rights to his product. Subsequently, Dieter posted a lengthy press release in which he stated that agreements with Cybercube were reinstated, granting Cybercube the right to collect and bundle registration applications on his behalf, which they will then forward to Dieter for registration. Lexicor was granted the right to explain how to register GEM-View but cannot accept registration applications or payments. Both companies may distribute the shareware (unregistered) versions free of charge.

Zocra Technologies has moved!!

This is a quick notice to let the users of our products know how to contact us for technical assistance. A more complete press release will follow. Registered users will be contacted. The new address and phone number of Zocra Technologies is: Zocra Technologies, 1715 Maplewood Lane, Glenview, IL. 60025-3009. (708) 729-3407.

Note: If you have sent mail to our previous address it will be forwarded to our new address automatically.

Future Atari Shows

The Glendale Show V7.0, September 18th and 19th, 1993

The show will be held Saturday and Sunday, Sept. 18-19, '93 at the Glendale Civic Auditorium, 1041 N. Verdugo Rd, Glendale, CA from 10 a.m. to 6 p.m. on Saturday and 10 a.m. to 4 p.m. on Sunday. General Admission is $5 per person. If you plan on attending and you live outside of Southern California, you may get FREE admission by sending a self-addressed stamped #10 envelope (the long one) to H.A.C.K.S., 249 N. Brand Bl. #321, Glendale, CA 91203 and get two one day passes.

We have made lodging arrangements with the New Red Lion Hotel in Glendale. If you mention ATARI/HACKS, you will get a room for $79/night (regular rates are $129), single or double occupancy. For reservations, call the Red Lion at 818-956-5466.

If you have any questions send mail to H.A.C.K.S., 249 N. Brand Bl. #321, Glendale, CA 91203. Or leave GEmail to John.King.T or call John King Tarpinian at 818-246-7276.

Atari Vendors/Clubs

Send product or show announcements to the ST Editor, Steven Kiepe, 29 Polk Ct, Newport, RI 02840. GEnie: S.KIEPE. All product names are copyrights or trademarks of their respective owners and are listed for informational purposes only.

Time Savers!

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NEW! FontFarm™--A collection of decorative, display, and artist fonts for use with desktop publishing programs. PageStream fonts include DMF, 24H, and FM files, and work with PageStream 1.8, 2.1, and 2.2 (PostScript with 2.2 only). Also available for Calamus (CFN). 52 PD fonts, 4 disks, 28 page directory--$39.95

LogoLibrary™--598 printer's logos for business cards, advertising, stationery, and desktop publishing. In addition, there are 442 symbols and graphics for charts, posters, shirt designs and signs. All images are hi-res (300 dpi) IMG format for PageStream, Touch-Up, etc. Six disks, 72 page directory--$39.95

Qwikforms™--127 forms and layouts for PageStream. Includes business forms, page layouts, legal forms, certificates, calendars and much more. Four disks, 40 page directory--$39.95

Templicity™--112 home, real estate and small business spreadsheet templates for users of LDW Power or VIP (specify which). Includes interactive tax templates for 1992--$39.95

Cliptomania™--10 disks of hi-res IMG clip-art. Categories include Advertising, Animals, Cartoons, Fantasy, Holidays, Letters, People, Restaurant, etc. 347 images, 28 page directory--$39.95

NEW! Cliptomania II™--10 more disks of hi-res (300 dpi) clip art in IMG format for use with PageStream, Touch-Up, Calamus, Publisher, etc. Categories include Animals, Business, Cooking, Fancy Fonts, Food, Holidays, Party, People, School, Symbols, Travel, etc. 472 images, 36 page directory--$39.95

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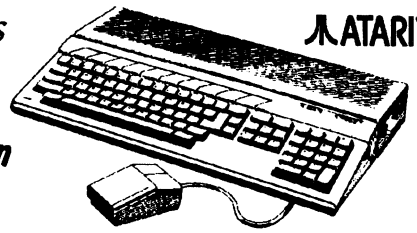

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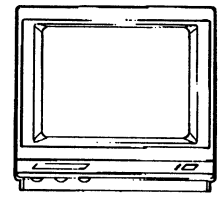

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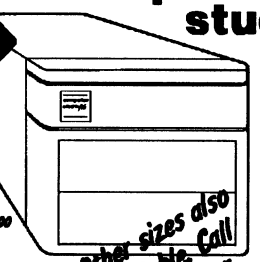

Case measures 6.9" x 6.0" x 10.5" and is color matched to Atari's TT030 (light beige). Assembly includes case with 60W power supply, power switch, LED power light, fan, removable power cord, two half height 5.25" drive bays, internal SCSI cable with two 50 pin drive connectors and two external 50 pin Centronics connectors.

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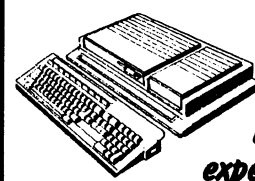

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Learning How to Teach Yourself
Programming with dBMAN
Part 3

(C) 1993 David C. Troy

The Saga Continues

For the last two months here we've been talking about using *dBMAN* on the Atari ST—how to create, index and access databases, as well as how to create handy applications that will let you use dBMAN as a custom tool.

Last month, we wrote a program that will let you manage your checkbook (CHECK.CMD). This month, we'll talk a little more about that exciting piece of work, and we'll also finish up our discussion of *dBMAN* with some tips on how to use what you've already learned to help you continue learning with *dBMAN.*

Edit Transaction

As we said last time, our checking account manager is great—you can enter and delete transactions, get an account balance, and even print different reports. What if you make a mistake and want to EDIT a transaction? Or what if you'd like to modify the program to actually PRINT checks?

Editing a transaction is fairly simple. Previously, the EnterTran routine set up a blank form for our transaction and allowed us to fill it in. Since EnterTran can already fill out this form for us, rather than have it begin with a blank form, we can have it begin with stored transaction data. Here's how it works.

In the new EditTran, rather than just store spaces, the current date, and other reasonable "blanks" to our temporary transaction data, we use the IIF() conditional function to determine what is assigned to each field, based on whether or not we're working with a new record (blank form) or an old record (filled-out form). IIF works like this:

```
TempAcc = IIF(NewRec,SPACE(4),acc_num)
```

If NewRec is TRUE (we're entering a new record; notice the addition of the "WITH .T." in the main menu when we call EnterTran), then we'll assign four spaces to the account number. If it's false, IIF evaluates as the second expression and we'll assign the stored account number to our working account number. See how this works? IIF allows us to quickly fill out our form with new or old data.

We didn't have to make too many other changes to EditTran to make it edit orders for us. I moved a few things around, and I also added a horrendous mess of a function that helps to determine where the cursor should be placed in the VMENU that lets you select transaction type. You can examine the syntax on your own, but essentially it uses IIF first to determine if it's a new transaction. If it is, it just tells the VMENU to start at option number 1.

If we're editing an old transaction, it looks at the stored transaction type and tries to find it in the TranOpts string. If it finds it, it uses TOKENS to count the number of commas to the left of the position where it found it, and then adds one. This turns out to correctly position the VMENU cursor over DEPOSIT if the stored transaction type was DEPOSIT. Again, you can marvel at this at your own leisure. Don't hurt your brain now. There are some other functions thrown in that line, too (UPPER, LEFT) that insure that it will all work right.

Other than a few other small changes (APPEND BLANK if NewRec is true, don't if it's not), this is all you have to do to "Edit Enable" an otherwise "Enter Only" procedure. Just remember to use blank, new data when you're entering and use your old data when you're editing. I write tautologies, therefore I am.

To get to EnterTran with NewRec false, we've added a new feature to the DeleteTran routine. After you select a transaction with SHOP, you are asked whether you want to **delete** it or **edit** it. If you select EDIT, you are sent off to EnterTran with NewRec as false. Viola—the record pointer is pointing at the record you want to edit, and you've set NewRec properly. Absolute *brilliance!*

Incidentally, last month I made the point that saved memo fields for transactions were uneditable with the old program. The new EnterTran changes all that. When you're editing a transaction, you will have the opportunity to edit the memo field. When your cursor is over the "Memo" field, press space to edit it or press return to save it as is—just like before. Only this time, it will let you edit a saved memo!

Printing Checks

In addition to being able to edit transactions, now you can write checks! This new PrintCheck routine is accessed at the end of the new EnterTran, and essen-

tially it just prints a check for the record pointed to in **checking.**

Obviously, you probably won't keep checks loaded in your printer all the time, so there are a couple of ways to approach this problem. I'll assume that you will either sheetfeed checks one at a time, load and unload tractor feed checks, or have two printers with a printer switch—one with checks, one with paper. I use the latter approach.

To cope with this, there's a "Press Any Key" type prompt before and after you print a check, to insure that you've set and reset your printers properly.

I use NEBS 9024-APA checks with this routine. They are two part (NCR-type) tractor feed checks with a stub in the top half and the check on the bottom half. They're perforated in the center. So, if you really want to use this routine with no modification, get some of these checks.

There are lots of other kinds of checks, too. Laser printer checks are popular now, and you can use them if you re-arrange the data in the PrintCheck routine.

Another caveat is you'll need to set the print pitch on a dot matrix printer to 12CPI to work with this routine. The written form of the amount (one hundred dollars and no sense ‹grin›...) gets a little long if you leave things at 10CPI.

So, on with the routine itself. It essentially just uses "@ SAY" commands to position and print standard check data. The only really inspired function is **TOMONEY**. This is a built-in *dBMAN* function that converts a number (0-amount in our case, because amount is negative for a check) to the long, written string. It will, for example, automatically convert:

$1082.91 to

ONE THOUSAND EIGHTY TWO AND 91/100 DOLLARS

This is really handy. And it works great. I have yet to find an amount that TOMONEY can't handle.

PrintCheck also prints the name and the address of the person to whom the check is payable (which is perfectly placed for use with window envelopes). It also types your transaction memo field at the top of the check, on the stub. This is incredibly useful. For instance, if we write a check here and we need to annotate it, we can write a paragraph on the check stub quickly and easily, and it gets stored electronically for later reference.

So that's PrintCheck in a nutshell. It works. Try it out. Reformat it for whatever checks you want to use. Who needs *Quicken?*

Teaching Yourself How to Learn

If you have been following this series of articles to this point, there's a good chance that you understand enough of the fundamentals of *dBMAN* to continue to experiment and learn on your own.

Don't be afraid (and I hope you've already begun) to experiment with different *dBMAN* functions, to look at the databases without the aid of the CHECK program, and really get a feel for how the whole system works. It's **incredibly** powerful.

Since I began to use computers, I have always found that the absolute best way to learn programming in a particular language is to modify existing programs. When I was nine years old, I would take BASIC programs on the Atari 800 and look at them long and hard. I'd read the manual for BASIC and form hypotheses about what would happen if I deleted a particular command, or what would happen if I added one in. I would test my theory by ***trying*** it. Heck! As Dave Small would say, "What's it going to do, fail?" Who cares if it fails? This is science!

After a little of this trial and error, along with doing some selected reading and observing existing, working program code, I began to get a pretty good feel for how these little "test-tube" commands would behave on their own.

So I started to string them together, one by one. Type something in. Tell it to RUN. See what it does. If it fails, just get up again and take another stab at it. It's just like riding a bike or learning to walk; you keep on trying until you're able to do it.

It is in this same spirit that I recommend you approach programming with *dBMAN*. Try stuff out and see what happens. Write some programs and let 'em run until they fail. You've got nothing to lose. After a while, you'll have a feel of how to use *dBMAN* to manage data for your personal use, or for your business, or whatever you like. It's incredibly powerful and the only way to master it is to keep on failing until it happens less frequently.

The CHECK program is full of holes, primarily because I didn't want to try to print a 20-page program. I purposely kept it as short and as limited as possible. But that leaves open potential challenges for you, "program modification man."

Why not try to make AddAcc a little more robust by having it look for duplicate addresses when you enter a new account. A good way to do this would be to use a GETFILE (check these out in the *dBMAN* manual). They are command files that are executed for a particular GET/READ command. Check 'em out. They're really powerful.

You might want to make EnterTran a little more user friendly by creating a custom form for each type of transaction. Or maybe convert the main menu to use GEM drop down menus. It's all in the *dBMAN* manual, and just as you'd fix up an old house one piece at a time, fix up CHECK one piece at a time. Enhance one module. When you're sure it's right, move on to the next module. You **will** learn (and fast) if you approach it this way.

```
*********************************************
* SEP '93--CHANGES TO CHECK.CMD WHICH WILL ALLOW
*              1) Printing Checks
*              2) Editing Transactions
*********************************************

* Modify these three lines in the MainMenu
* procedure to include the 'Write Check' and
* 'Edit' Features we've added and the NewRec
* variable for EnterTran.

  @ 9,20 SAY "1.  Enter New Transaction / Write
Check"
  @10,20 SAY "2.  Delete / Edit Existing Transaction"

  .
  .
  .
  DO EnterTran WITH .T.     | NewRec = .T.

*-----------------------------------------

* Completely replace the EnterTran routine with this
* new version. You don't have to delete it and then
* retype it, but be aware there are numerous changes.
* Make your routine read like this one. <what fun>

*************************************************
* ENTERTRAN--Enter OR Edit a Transaction
*            IF NewRec is True, it's a New RECORD!
*            IF NOT, We're Editing an OLD RECORD!
*************************************************
PROCEDURE EnterTran
PARAMETER NewRec

IF NOT NewRec
  R = RECNO() | Store Record Number in case we move
ELSE
  SELECT checking
ENDIF

PrtChk = .N. | Set default for check printing to NO

TempAcc  = IIF(NewRec,SPACE(4),  acc_num)
TempDate = IIF(NewRec,DATE(),    date)
TempAmt  = IIF(NewRec,0,         ABS(amount))
TempType = IIF(NewRec,SPACE(10), tr_type)
TempMine = IIF(NewRec,.Y.,       mine)
CheckNum = IIF(NewRec,"0000",    EXTRACT('
',tr_type,2))
* WHAT KIND OF TRANSACTION?
CLEAR
@3,0 TO 23,79 DOUBLE

TranOpts="Check,Deposit,ATM Withdrawal,Electronic
Payment,Other"
StartOpt =
IIF(NewRec,1,TOKENS(',',LEFT(TranOpts,AT(LEFT(TempType
,3),UPPER(TranOpts))))+1)

ASSIGN VMENU(",",TranOpts,6,StartOpt,0,1,13)

DO CASE
 CASE VMENU() = 1
  IF NewRec
    TempAcc  = FindAcc("Pay To The Order Of...")
  ENDIF
  PrtChk = .Y.
  @ 8,42 SAY " Check Number: " GET CheckNum
  @ 9,42 SAY " Print Check Now? " GET PrtChk
  READ
  @ 8,42 CLEAR TO 9,78
  TempType = "CHECK "+CheckNum
  PosNeg   = -1
 CASE VMENU() = 2
  TempType = "DEPOSIT"
  TempAcc = ""
  PosNeg   = 1
 CASE VMENU() = 3
  TempType = "ATM_WITHD"
  TempAcc = ""
  PosNeg   = -1
 CASE VMENU() = 4
  IF NewRec
    TempAcc   = FindAcc("Electronic Payment Made
To...")
  ENDIF
  TempType = "ELEC_XFER"
  PosNeg   = -1
 CASE VMENU() = 5
  @ 8,42 SAY "  Type: " GET TempType PICTURE "@!"
  READ
  @ 8,42 CLEAR TO 8,78
  YN = .N.
  @ 8,42 SAY "Assign To Particular Account? " GET YN
PICTURE "Y"
  READ
  IF YN
  TempAcc = FindAcc("This Transaction Pays To/Paid
From...")
  ENDIF
  @ 8,42 CLEAR TO 8,78
  YN = 'W'
  @ 8,42 SAY "Withdrawal or Deposit? (W/D) " GET YN
PICTURE "!"
  READ
  @ 8,42 CLEAR TO 8,78
  PosNeg = IIF(YN='D',1,-1)
ENDCASE

IF VAL(TempAcc)<>0
  @ 6,48 SAY people->name
ENDIF
@ 9,42 SAY "  Date: " GET TempDate PICTURE "@D"
```

```
@10,42 SAY "Amount: " GET TempAmt  PICTURE
"$########.##"
@11,42 SAY " Yours? " GET TempMine PICTURE "!"
READ
IF LASTKEY()<>27
   TempAmt = TempAmt * PosNeg
   SELECT checking
   IF NewRec
      APPEND BLANK
   ELSE
      GOTO R
   ENDIF
   REPLACE acc_num WITH TempAcc
   REPLACE date    WITH TempDate
   REPLACE amount  WITH TempAmt
   REPLACE tr_type WITH TempType
   REPLACE mine    WITH TempMine
   @14,42 SAY "  Note: " GET tr_memo
   READ
   IF PrtChk
      DO PrintCheck
   ENDIF
ENDIF

RETURN
*-----------------------------------------------
* Replace your DeleteTran routine with this one.
* This will now ask you whether you wish to
* delete or edit a selected transaction.

***********************************************
* DELETETRAN--Allows you to Delete or EDIT
* a Transaction
***********************************************
PROCEDURE DeleteTran
SELECT checking
SET INDEX TO ckdate

hdg1="'ACCT','NAME','DATE','AMOUNT','TYPE','YOURS'"
hdg2=""
pic="'XXXX','XXXXXXXXXXXXXXX','@D       ','@XC
$####,###.##','XXXXXXXXXX','X'"
fields="acc_num,people->name,date,-amount,tr_type,
mine"
SHOP ALL FROM RECNO() hdg1,hdg2,fields,pic

IF LASTKEY()=13
   CLEAR
   YN=.N.
   @ 4,3 SAY "DELETE or EDIT Transaction
"+LTRIM(STR(RECNO()))+"?"
   ListOpts="Delete, Edit "
   ASSIGN VMENU(",",ListOpts,6,1,8,1,13)
   DO CASE
   CASE VMENU()=1
      DELETE
      PACK
   CASE VMENU()=2
      DO EnterTran WITH .F. ! This is NOT a new record!
   ENDCASE
ENDIF
RETURN
*-----------------------------------------------
* Add this new routine, PrintCheck to your
* program. It will allow you to print checks,
* and it's accessed by the new EnterTran procedure
* (at the end).
***********************************************
* PRINTCHECK--Prints a Check for the Record
*             Currently pointed to in Checking
***********************************************
PROCEDURE PrintCheck

CLEAR
@ 10,0 SAY CENTER("Press Any Key When Your Checks Are
Loaded In Your Printer...",80)
WAIT

SET DEVICE TO PRINT
SET PRINT ON
SET LINE COUNT TO 42
SET BOTTOM MARGIN TO 0
SET TOP MARGIN TO 0
SET TOPFORM
@  0,4  SAY TRIM(people->name)+'
'+TRIM(people->phone)+' '+acc_num
@  0,PCOL()+2 SAY 0-amount PICTURE "$#######.##"
@  0,PCOL()+2 SAY date PICTURE "@D"
@  2,4  SAY tr_memo PICTURE "70,16"
@ 22,73 SAY tr_type
@ 27,1  SAY TRIM(TOMONEY(0-amount))
@ 27,65 SAY date PICTURE "@D"
@ 27,81 SAY 0-amount PICTURE "$#######.##"

SELECT people

@ 29,9 SAY name
@ 30,9 SAY address
@ 31,9 SAY TRIM(city)+', '+TRIM(state)+'  '+zip
FORMFEED
SET LINE COUNT TO 66
SET CONSOLE ON
SET PRINT OFF
SET DEVICE TO SCREEN
CLEAR

* THIS IS A GOOD OPPORTUNITY TO UNLOAD CHECKS
* OR FLIP A PRINTER SWITCH TO THE NON-
* CHECKWRITING PRINTER

@ 10,0 SAY CENTER("Press Any Key To Continue...",80)
WAIT
RETURN
```

The more I think about it, learning programming in a particular language is really no different from learning to speak a language (even from learning English at birth). You gather data and discern syntax from examples. Then you begin to perform small experiments. A baby will make sentences, you'll write programs. Parents correct the baby, and the interpreter/compiler will correct you. Eventually, you two will be able to function tolerably.

After a little time for confidence building (6-7 years old), you'll start to study spelling and grammar (*read the manual*)! You'll begin to think of new and creative ways to make sentences; and you'll know that you can only use a semicolon to separate clauses. And just think, programming is much easier than English!

So give it a shot. Don't be afraid to fail. After a while, you'll do great.

dBMAN Specific Details

There are a couple of itty bitty details you should know about program development under *dBMAN*. All of these topics are covered in depth in the manual, too.

Roughly speaking, *dBMAN* is an interpreted language, meaning that each command is decoded and converted to machine language one line at a time. This is a handy feature sometimes, but you lose speed. To make things go a little faster, you can use the *dBMAN GLGEN* (Greased-Lightning Generator) "pre-compiler" (I don't call it a full compiler because it's not—it doesn't generate machine code) to greatly increase execution speed. It does some of the "interpretation" beforehand and saves *dBMAN* itself a lot of work.

To use GLGEN.TTP, just give it the name of your CMD file and it will make a RUN file from it. To take advantage of RUN files though, you must keep CMD and PRO files in a separate location. *dBMAN* will always try to use CMD files before it tries to use RUN files, so if you have CHECK.CMD and CHECK.RUN in the same directory, you won't see the speed increase of using CHECK.RUN because CHECK.CMD will preempt it.

I briefly mentioned PRO files, and they are generated by the SET PROCEDURE TO command (see CHECK.CMD). A PRO file is used only with CMD programs (not RUN programs) and contains information about where in the command file certain procedures begin so that it can find them faster. If you edit a CMD file for which a PRO file already exists and then try to run that CMD file, it will try to use the old PRO file and access routines in the wrong place. Therefore, it is often wise to use the ERASE command.PRO command (see CHECK.CMD) immediately before the SET PROCEDURE TO command when you're developing CMD files. RUN files do not require PRO files.

Versions

As *dBMAN* has old roots, there are many versions of it floating around. Joe had mentioned he had had trouble using CHECK.CMD and he was using dBMAN version 5.10. I developed the program using *dBMAN* 5.20YI.

There are older versions than 5.10 floating around, too. If you have trouble with a specific command in the CHECK.CMD program, I recommend that you get an upgrade to at least 5.20.

Version 5.30 is available now, too, for the Atari, but it is my considered opinion that most people have version 5.20 right now, so that's why I wrote the program for it. I'm using 5.30 on my Messy DOS systems and there are a few changes. I definitely didn't want to write the program for version 5.30 and have most people have trouble with it.

So anyway, if you're having real trouble, check your version number. If it's 5.20YI, check your program code. Otherwise, consider getting 5.20YI, or even 5.30. It would be great practice to convert the program to 5.30 (although it shouldn't require many changes at all—I tried to be as 5.30 aware as I could.)

That's All

We'll wrap up our discussion of *dBMAN* next month. If anyone has any questions they would like answered about *dBMAN*, please send them to me. I'm also planning to talk about the computer industry as a whole next month, and talk about the Power PC, the Pentium, the 586, localbus, Apple, the Newton, and of course, Atari. If anyone has anything cool to say about this stuff, send it on in ASAP. Bear in mind that by the time you see this, I will have to turn in the article about two days later, so use e-mail and FAX to make your responses as immediate as possible.

Good luck with your programming experiments!

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Heisenberg's Uncertainty Principle

Or:

It's a Miracle These Computers Even Run!

[The best part of the entire 68030 SST project, for me, was writing the "Interludes" that come between each chapter in the SST manual, which help keep the reader awake. Sandy (the "Editor") and I have done these interludes in all of our manuals, but of them, this is one of the more computer related and interesting. See what you think. –DS]

If you're into physics, you've heard of this. Heisenberg's Law states (well, one of them) that you can't really know what the heck is going on, because by seeing something, you change it. The common example given is at the atomic level; when you try to observe the atom, you lose, because by having a photon (light) bounce off the atom, you have changed the atom's spin and momentum and direction. You can't really know what the atom was doing before you stepped in and observed it.

Developing the SST has been a real interesting experience proving Heisenberg's Principle all over again, in the real world. I have grey hairs to prove it.

I guess it must be all the ads for ultra-MHz machines from a hundred manufacturers that make people so blase about the miracle that is occurring.

People, these 50 MHz, 8 megabyte, any brand-name computers are a flat miracle to me. And I know that at each of those 100 manufacturers there are engineers sweating blood to make them work, to give the salespeople something to make brochures about. I know this now because I have been through the process. It is awfully hard. (And NO!, this is not some sort of apology that our board doesn't work right; the SST is tight, fast, and amazingly, cheap!)

Let me tell you a little of the miracle, and remember, it applies to any of your 80486/33 MHz IBM boxes or any of the faster machinery you can buy today, not just the SST.

Consider electricity, which is what these circuit boards run on. Think of it as sort of a fluid flowing down the wires, like water down a hose. The pressure is called "volts," the number of gallons per minute is called "amps." It's a reasonable analogy.

Speed

But this electricity runs at a certain speed: 186,232 miles per second (wow!), or 983,304,960 feet per second. That's the "C" in E=MC2, the famous equation from Einstein: the speed of light itself, the basic "speed limit" of the universe. (Note: electricity flows at slower speeds in some types of wire; faster in cable, slower on PC boards. This is not exact.)

And in metric, since the ST and SST are international: 300,000 kilometers per second, or 300,000,000 meters per second... 3 x 10^8, a number which I remember well from my college classes!, or 26 cm per nanosecond.

That means, in the ever-so-common "nanosecond," or one billionth of a second (which you will see in any advertisement for computer memory, e.g., "120 nanosecond RAM, 1 Megabyte, $30" – which is precisely what your Atari ST uses as relatively slow memory! – anyway, in that one billionth of a second, electricity moves almost exactly one foot.

Now look. In a two foot square supercheap IBM clone, that means it takes about two nanoseconds for electricity whizzing along a wire to get from one side to the other. And believe me, folks, that is critical. For signals often arrive in a bunch, with their timing related... say, for example, 32 wires of an address, and another wire going "twang" saying, "Okay, the wires at this instant have a valid voltage on them." If the "twang" (we call it a "strobe") wire is run the wrong route on the circuit board (in other words, the curcuit board is laid out badly), you might build in a 2-4 nanosecond delay, and your board will not work, even though it matches the schematic.

Try to find out why your perfectly valid board (according to the schematic) doesn't work. Plug in your instruments. Well, all of them use cables that have electricity moving 1 foot/nanosecond, too! And they add a thing called "capacitance" which makes your signals move less sharply than they once did; instead of springing from zero volts to five volts, they sort of gently ramp up from zero to five. Believe me, ramping up is awful to a computer; the poor thing only understands 0 and 5 volts, and in between is Dead Man's Land, avoided by everyone! (Very often, plugging in an instrument like an oscilloscope will prevent a computer from working, and the engineer has to find a way to get a glimpse of what's going on without upsetting the computer too badly, just to see what's going on.)

Cray's Wires

When Seymour Cray, the designer of the Cray computers, built his first ultra-fast machines, he used color-coded wires; each different color was one foot (a

nanosecond) longer in length. He timed the machine by adding a nanosecond here, a nanosecond there, in feet of wire. You could easily crash a Cray computer just by swapping lengths of wire. You could also reportedly do it by soldering the wire's connections; since wire-wrapping without soldering gives faster electron flow. (He also used ultra high speed and power hungry chips called ECL, which means the Cray machines pull power like an arc welder; the real engineering marvel of the Cray is the cooling system that prevents it from melting into a puddle of molten metal!)

Editor: *Ohhhh! Like in Terminator II.*

Seymour Cray also found that if you make a right-angle turn on a "trace" (a wire on a circuit board), that the electrons tended to bounce raggedly. This, in turn, made the "wave front" arrive at the next chip raggedly instead of all at once, making for "hiccuping" and crashes. He had to make 45o angle cuts half-through the right angles so the electrons bounced smoothly around the corners, and kept the front edge of the electricity all together, so that all the signals would get from "Here" to "There" at the same time.

I have no idea about how he found this with the instruments available during the Cray-1's design. I believe that what was going wrong (the bug), and the fix, came to him intuitively. That is why he is Cray, and has computers named after him.

Editor: *I think debugging is very much like detecting. To quote Sherlock Holmes, "When you have eliminated the impossible, whatever remains, however improbable, must be the truth."*

Other Editor: My reply to Sherlock, "While debugging, nothing is impossible; that's the problem!"

Some of the the chips we are using for the high speed stuff in the SST are rated at 15 nanoseconds to "do their thing." Engineers call it "propagation delay"; it's the time it takes the chip to get the electricity from the "in door" to the "out door." Use a slow chip and you are out of luck. (Even in the now-slow Atari 800 days, I had a project fail because a fast transistor could not keep up... and that was a 1.79 MHz computer, not a 40 MHz speed demon!)

Faster Than A...

Want a little perspective? Electricity/Light moves around 30 feet in 30 nanoseconds. 30 nanoseconds is the net total time it takes the average modern hydrogen bomb to detonate! One of the reasons they are so hellishly powerful is that much concentrated energy appears that fast in such a small space; for a few seconds, where the bomb was is as hot as the sun, and it gets hot that fast. (But I write this near the end of 1991, and the possibility that we'll see them set off is looking less and less likely as the years go on, thank heavens!)

But... 30 nanoseconds? Heck, some SIMM memory is rated at 60 nanoseconds... and our switching logic, rated at 15 nanoseconds, is TWICE AS FAST AS A HYDROGEN BOMB.

I want to sit down right now and say that I feel perfectly justified in plotting bombs on the screen if one of the chips can't keep up! (And may H-bombs move to being just a memory that we can laugh at and make jokes about; I'm not trying for sick humour.)

As you're running your SST, it will be performing at those speeds, day in, day out, the chips thinking it's nothing special, not overstressed or over-run. In fact, if a chip won't make 15 nanoseconds, we have to throw it away!

But at these speeds...

Glitch Chip Corporation

These guys are closely related to the well known Raving Idiot Part Supply, whom we ran into with the GCR...

So we were getting ready to ship a bunch of SST's, and we got a notice from the chip manufacturer that some of these specially programmed fast chips were defective: if they tried to push too many wires one way, they would generate a "glitch" just two nanoseconds after the switch. And folks, that glitch was plenty to scramble the SST's mind. We had been going out of our minds trying to find the problem on known "good" boards.

It is hard to even see such a glitch. If you put an oscilloscope on the line, the capacitance of the scope wire will absorb the glitch, and you won't see it on the display.

In fact, the glitch will absorb so very well... that the SST will start working. That is a perfect example of Heisenberg's Law: by observing the signal, we changed it.

Which meant (at that time) that the only way to ship the SST was with a scope. "Just clip on here." (*chuckle*) I bet that would have gone over real well with the magazine reviewers!

Well, we finally got replacement good chips from another manufacturer (8-12 weeks, because they had to redo their design), and had one boring time swapping chips (total drudgery!), and retesting. The SST works now without a scope attached.

And that was just one bug we had to work through getting the SST to you.

Ringing

Another charming aspect of electricity being switched this fast is called "ringing." This is where you move a wire from zero volts to 5 volts, and instead of doing it nicely, it goes, "GONG!," and rings like a giant bell being rung. You get a lot of high-speed ups back to 5 and downs to 0 and some day it settles down, after completely bewildering everything depending on that wire for timing. ("Make up yer mind, Bud!")

Fortunately, ringing tends to continue when a scope is hooked up, so at least you can see it. You can either try to add a dampen-out circuit ("termination") or you can

jolt the wire a little less hard, which is what we ended up doing. Honest, you can't just pile in the fastest, hairiest, strongest chips in there; they will ring the whole board right out of working.

Undershoot

Worse, the wire can have "inductance," which is easy to visualize: once you've stopped it, electricity doesn't want to start moving, and once it's moving, it doesn't want to stop - like, say, a train. If you switch from 5 volts down to zero volts, the electricity just keeps on going down, down, down... in fact, it goes negative, say, -2 volts. This is called "undershoot"; every computer designer knows about it, and it's especially nasty - because negative voltages burn up other chips and destroy them. Memory SIMMs are particularly nasty about undershoot and have long required special pampering. It's become a whole science: how not to blow up other chips on the boards.

Believe me, it is real hard to troubleshoot a board that self-destructs in 100 billionths of a second.

Editor: So much for, "This tape will self destruct in 5 seconds, Mr. Phelps" from Mission Impossible.

Soldering

So I had this hand soldered, prototype SST that was failing every now and then. I clipped the scope on to the power feed and was horrified to see undershoot of negative two volts around the memory chips. I mean, your power feed should be ultra rock solid... one memory component's literature warns you that 0.2 (2 tenths) of a volt variation will prevent the chip from working. I sweated this for quite some time, trying to figure it out.

And then when I took a production board and checked it, there was no undershoot at all, and the ringing was well within .05 volts (5 hundredths). Ergo, there wasn't a problem, just one bad prototype board.

The only difference in the circuit boards? The prototype had been hand soldered, and the production one had been "wave soldered" (a mass production method where the whole board is stuffed with parts, then floated over a bath of molten solder for a few moments, so all the parts are soldered in at once).

I know what you're thinking - screwed up solder job, right? I hate to tell you that the hand solder job was just fine, too... and I even resoldered all the power related joints just to be sure there were no cold solder joints.

I still don't know and, most discouraging, probably never will know what exactly is wrong with that board. That's one reason we test every SST before we ship it.

Bypass

Remember those 15 nanosecond chips? When they do something, changing a line from 0 to 5 or 5 to 0 (and most modern computers only use 0 and 5 volts, to mean "0" and "1" logically)... when they switch, they drain the local electricity from the circuit board, meaning all of it around them for an inch or two. Remember, this electricity is moving at 186,232 miles per second, so we have to worry about inches!

So what you have to do is have, physically close to each little chip, a little storage pond ("capacitor") full of electricity that can be drained into each chip real fast during the switching action. After the switch, the "pond" refills from the main power feed, at 186,232 MPH. But if you don't have enough of these "bypass caps," you get random death in the logic circuits... those crashes that are not "explainable."

Cosmic Rays

I've mentioned many times that cosmic rays flip memory bits when they impact, and our universe is pretty noisy in cosmic radiation. I have it worse here in Denver, since the local altitude is a mile higher; there is less atmosphere shielding me from the universal ghetto-blaster (noise). I have seen, while editing, one character get flipped "by magic," for instance.

IBM series computers (and some Macs) now have a feature where if memory gets a bit-flip, everything stops and the machine yells bloody murder ("Parity Check"), just because of horrid things like this.

As you can imagine, cosmic rays can affect SST's, too!

And you people at the lower altitudes who think you're safe? Well, cosmic rays (stray radiation) can come out of the ground, too.

And the Future?

In many ways, computer engineers are up against the speed of light/electricity in designing new computers. And that limit is, to our knowledge, unbreakable.

Editor: According to Einstein.

Yet experimental chips are now running at 100 MHz; they generate so much heat that a special chip that cools them must be attached! That's far faster than the 40 Mhz SST.

What's happening is that things are getting smaller. The engineers, faced with the speed of light, are cramming everything into a few 1 inch chips (and internally, the electronics are about a quarter inch square, call it 1 centimeter). And there's work being done on materials that switch faster than our "slow" 15 nanosecond gates; not 70 miles south of where I'm writing this, Seymour Cray is at work on his latest and greatest, the Cray-3, with new materials and new technology.

To me, it says a lot about the human spirit that even when faced with an absolute law of physics - the speed of light - that people like Cray, and thousands of lesser known engineers, keep pushing for more speed, memory, and power.

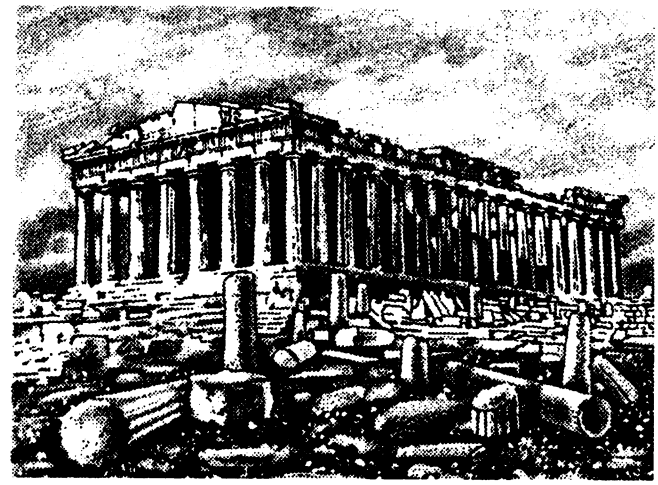
And that's just the hardware!

Sid Meier's

CIVILIZATION

The Best of BOTH Worlds!

Review by James Parker



What do you get when you combine *Populous*, *Sim City*, and *Empire*? *Civilization*! If you want to cut to the chase, let me just say this game is one of the best I've ever played. Stop reading this and go buy it now. For those of you who need or want some more information, then read on!

The Game That Almost Wasn't

Brought to you by Sid Meier, the same man who wrote *Railroad Tycoon*, *Civilization* almost didn't see the light of day on the Atari platform. According to a British ST magazine, a massive letter writing campaign to Microprose changed their minds and we now have another great piece of software to add to our libraries. With the decline of software for our Atari and once strong supporters like Soft-Logic becoming wishy-washy, we must make our desires for new and better software known. It's easy to say, "Yeah, if they release that, I'd buy it," but be realistic, and honest. Put your money where your mouth is, or get out of the ball game. Don't whine and cry but do nothing about it. The release of *Civilization* is proof companies listen to users!

Slop Job or Quality?

For those that might be worried this was a quick port from the IBM or Amiga with many options missing or handicapped play, fear not! The manual included is for the IBM and includes an Atari supplement that describes *additional* features that were added to the game. "Oh," you're thinking, "but I bet they have a nasty copy protection scheme so I can't install it on my hard drive." Must we be so negative? Wrong again. The only copy protection is a one time code that requires the manual. There is even an install program that copies everything onto your hard disk for you. If you don't have a hard disk, then you are in for some disk swapping, as the game comes on four double-sided disks. With prices as low as they are, there is no excuse not to buy a hard disk, so pick one up while you're out getting *Civilization*. It makes the game much more enjoyable. You'll also be happy to know it runs fine on my Mega STe at 16mhz w/cache and *Warp 9* installed so it should run on just about any ST. The only requirements are 1 meg of RAM, color or monitor, and a double-sided drive. The game uses the mouse, but provides many keyboard shortcuts that really speed the game play along.

Supreme Ruler

Can you build an empire that never fails? One that stands the test of time, from 4,000 BC to the space age? This is your task as you become the ruler of a fledgling civilization and lead it to colonizing the stars ... if you survive. You'll face history's most legendary leaders like Julius Caesar, Alexander the Great, Montezuma, and others. Will you try to conquer the world, or live in peace? Choose Communism or Democracy? The amount of control you have is almost overwhelming at first. Be prepared to consult the manual a lot during your first few games. To help with the learning curve, there is a built in *Civilopedia* that can be consulted anytime during the game. What a great idea! You can instantly (with a hard disk) call up information on terrain type, civilization advances available (over 70), city improvements you can build, military units, government types, terrain improvements like irrigation and mining, and other game concepts not covered elsewhere. Although the manual and supplement give you tips for the beginning player, a walk-through tutorial would have helped a lot. There are just so many options to consider!

Starting the Game

When you first load the game, you are presented with a cinematic intro story that you can bypass after the first time. Next, you are presented with the options of starting a new game, loading a saved game, starting a new game on Earth (the same continents, tribes in historical locations) or customize a world. This last option allows you to choose the amount of land mass, average temperatures, amount of moisture, and starting date. Your next decision is the level of difficulty you wish. There are five levels and, trust me, you'll want to start on the easiest one to get started. The easy level keeps a new player from get-

ting frustrated, but the levels get hard pretty quickly. Level 5 (Emperor Level) is for experts only. It's tough.

Your next option is to choose how many civilizations you want in the world with you, the minimum being three and the most seven. The fewer the opponents, the longer you'll have to build and advance before you meet. A greater number of opponents increases the chance of encounter and possibly war, but it also allows for earlier trade routes and alliances. A nice touch is the ability to change your tribe's name. If you don't want to be the Aztecs, change it. You also can either accept or change the name the computer gives you as leader. Now you are ready to start developing your empire.

Building Cities

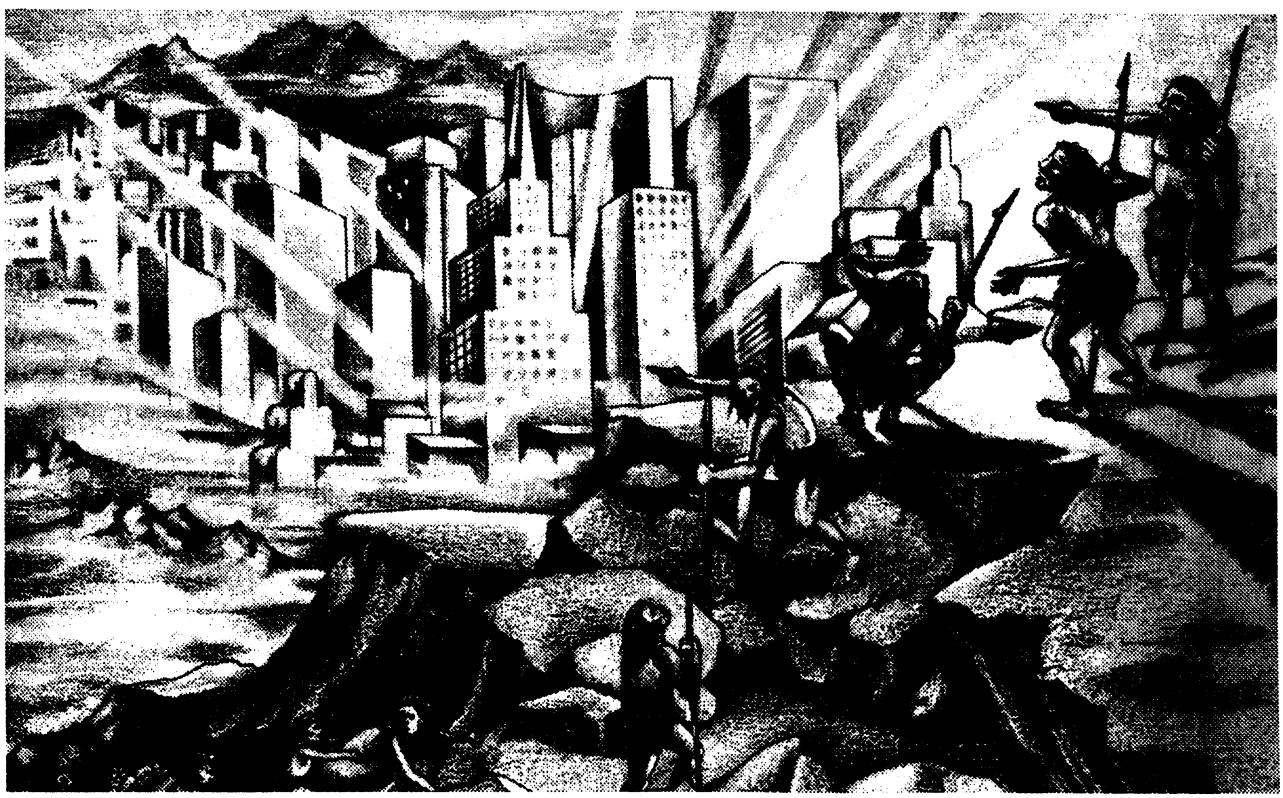
You begin with one settler unit and a lot of black area surrounding it. You haven't explored the world yet, so it's all undiscovered country. You have no idea how close you are to the polar regions (uninhabitable), how large or small the continent you are on is, or how close another civilization may be. Certain terrain types are conducive to city growth while others, like tundra and desert, are not. If your settler group is in a favorable location, go ahead and found a new city. If you don't like the name the computer gives it, change it. If the area is not too good, you will have to look for a suitable location. Don't waste too much time; the other civilizations are expanding, too.

After your city is founded, you decide what you want it to produce. On the easiest level, your advisors will suggest things, and it's up to you to agree with them or not. This is where strategy comes into play. Will you play an aggressive, militaristic role, or a more democratic, passive one? Depending on your choice, you may want to build military units and bypass most city improvements.

Science

While your city is churning out what you have chosen, your scientists are busy researching the newest civilization advancements. An extensive fold out flow chart is located in the back of the manual. This chart shows which civilization advances are needed to achieve specific city or military improvements. For example, until your scientists have researched the wheel, you can't build chariots. In order to have Trade, you must have first discovered the Alphabet, Code of Laws, Bronze Working, and Currency. The time it takes to make an advance depends on several factors. Are your cities in civil disorder? If so, they produce no tax revenue, no research, and all production stops until order is restored. The biggest factor is the tax rate and luxury rate you set. The higher the tax rate the slower the rate of advances. The same goes for the quantity of luxuries generated in a city. The more produced, the longer it takes to make a new discovery.

To speed the process up, you can create specialists. These people can be tax men, used to increase tax revenue in a city; entertainers, used to create more luxuries, and scientists, who increase the amount of knowledge your city is producing. To main-



tain a healthy city, you must maintain a balance of all three, along with a suitable tax and luxury rate to keep your people content. Remember, when unhappy people outnumber happy people, your city goes into civil disorder.

Government

There are six governments available in *Civilization*. You start off as a Despotism. You have no choice yet, as your civilization has not yet discovered any of the other forms of government. The other forms are Anarchy, Monarchy, Communism, Republic, and Democracy. Anarchy only occurs during revolutions, which is required when changing forms of government. Again, your choice of government depends on how you want to play the game. If you plan military conquest, you should stay away from Republic and Democracy. Under these two, you are not allowed to declare war on another civilization unless you are attacked first. On the other hand, the Republic and Democracy allows for much greater production of food, trade, and resources. The choice is yours, once you have made the necessary advance. Your cities can even produce diplomats, with which you can travel to other civilizations and establish embassies, spy on cities, steal technology, conduct sabotage, incite a revolt, or have a meeting with the king.

Wonders of the World

Wonders of the world have various effects on your population, but they are all positive. There are 21 different wonders, 7 each for the three epochs of civilization: Antiquity, the Middle Ages, and the Industrial Age. Still, to build a Wonder requires specific advances and many resources. Some of the available Wonders are the Great Wall, the Pyramids, Michelangelo's Chapel, The Apollo Program, and The Cure for Cancer. Once another civilization builds a specific Wonder, it cannot be duplicated. Even if your civilization had one under construction and another civilization completed it before you, yours will not be finished. But, Wonders can be yours for the taking if you can conquer the city where it is located.

Through the Years

As your cities grow, roads become railroads, and musketeers give way to mechanized infantry. If your civilization survives, you may be able to reach for the stars. To do this, you must have reached a certain level of advancement, and one civilization must have the Apollo Program Wonder. You build your spaceship in pieces; the bigger it is, the more people it can carry. If other civilizations have the correct advances, then the race to colonize Alpha Centauri is on! If yours is the first to reach Alpha Centauri, then you will receive a nice bonus to your final score; if not, you receive nothing. No matter what, your final score is tabulated when one of five things happen: 1) You retire from play; 2) Your civilization is destroyed (You receive no score); 3) A civilization reaches Alpha Centauri; 4) You conquer the world; or 5) A certain date is reached, depending on your difficulty level.

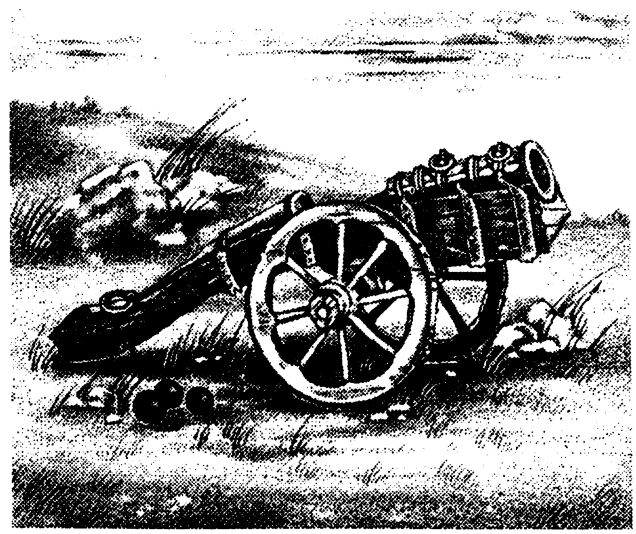
Even though scoring ends, you may still elect to continue playing for as long as you want, unless of course, you are destroyed. This option makes the game even more enjoyable and appealing. If you want to go for a high score, you can, but if you'd rather just play a leisurely game well past the time limit, that's available, too.

Wrap Up

Whew! There is so much more to *Civilization*; I've just barely scratched the surface. The graphics are very nice and it's easy to distinguish which units are yours and those that aren't. Movement of units can either be accomplished by the mouse or keyboard. I prefer the keyboard as it's a little easier and faster. Sound is minimum, except for a little tune now and then and a "BLAM" effect when you attack another unit or city. The only problem I've had is occasionally text will not be centered properly on the screen and wrap around to the other side. This happens only when you launch your spaceship. I also had the game bomb on me once, but since it hasn't happened again, I assume it was an uncooperating accessory or auto program I forgot to disable. Another nice feature is that the game automatically saves every 50 years of game time, and you can save up to four other games any time you wish.

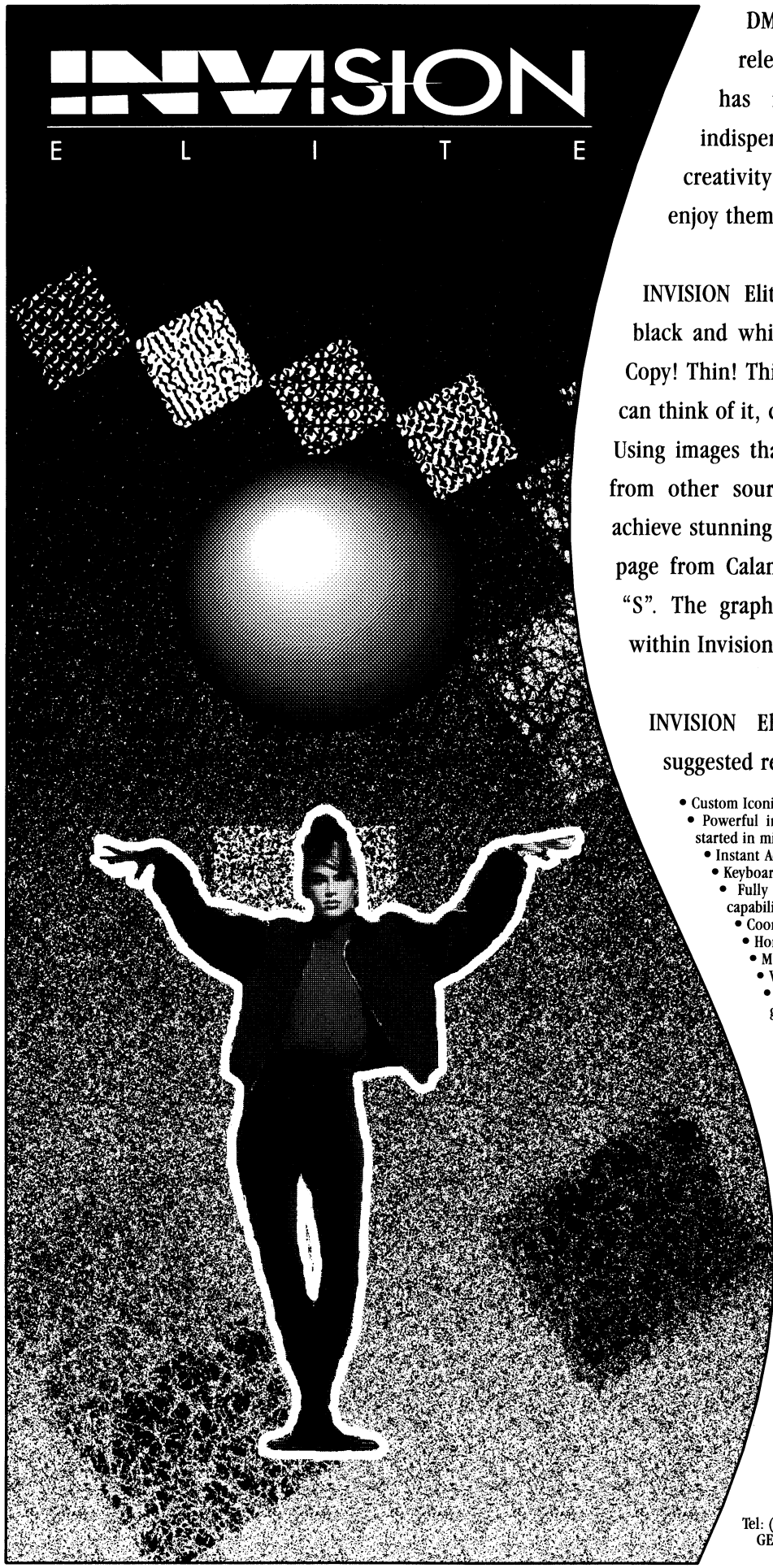
I know I've left a lot out. There is just too much detail to the game to describe it all in one review. Suffice it to say it's absolutely fantastic. With so many different strategies to use, different governments, options, and worlds, this game will be staying on my hard drive for quite a long time.

[Civilization (retail approx $45): Microprose, 180 Lakefront Drive, Hunt Valley, MD 21030.)



INVISION

E L I T E



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INVISION Elite unleashes your creativity. The suggested retail price is US $129.95, CDN. $149.95.

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- Powerful intuitive design featuring the Icon Bar allows you to get started in minutes.
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Atari in the STicks
Henry K. van Eyken

Orality, Literacy, Computency
Gradus Ad Parnassum

> *Every man has a right to utter what he thinks is true, and every other man has the right to knock him down for it.*
> – Samuel Johnson

And thus it went, that ancient argument:

Thoth: Writing will make people wiser and improve their memories.

Thamus: O most ingenious Thoth, the inventor is not always the best judge of his creation's worth. And in this instance what you say isn't true. Your invention will cause forgetfulness in learners because they will no longer cultivate their memories; they will rely on writing rather than remember themselves. Your discovery fosters reminiscence, not memory. Your disciples will hear many things and learn nothing; they will seem omniscient, but know nothing; with a mere semblance of wisdom they will make tiresome company. And answers will be the same always, without any concern for circumstance or audience.

These musings by Socrates were recorded about 2400 years ago by Plato in his *Phaedrus*. Writing was hardly a novelty even then. It had been applied for more than a thousand years much as it is today: for the recording of business accounts, of laws, of scientific observations, and more recently for giving permanence to man's adventures and thought. Isn't it fascinating that one of the great writers of all time thus expressed his disdain for an art without which he would hardly be remembered?

It is unlikely that Socrates and Plato harbored the same notion of memory as we do now. Certainly, we moderns put our heads to rather different uses. The ancients held a well-cultivated personal memory in far higher esteem than we do today; after all, in an oral society, personal memory is the only available carrier of knowledge so perilously gathered over generations immemorial. Personal memory meant survival first of all, but personal memory also came to endow life with deeper meaning, its why and its worth. Socrates correctly predicted writing to become the doom of memory's ancient glory.

A criticism similar to Socrates' has been levelled against electronic calculators for they threaten to decay cherished fundamentals, first by apparently lessening the need to memorize tables of addition and multiplication. (What is one to do if a battery runs down?) And, by extension, it can be levelled against computers, especially those carried on the person, which today are our pocket computers. Their high speed and precision may be seen as making man's brain lazier still, a criticism that implies brains becoming less useful to their owners and, worse, to society.

However much we admire Socrates as a philosopher and teacher, the above writhing about writing does not stand today as entirely valid. Socrates has Thamus be concerned with personal, not communal, memory. Human society has gathered much experience and knowledge since his days and has learned to preserve it by employing that fine, artificial memory, the written record. In a similar vein, today's preoccupation with information retrieval and automated problem-solving makes the computer a tool we shall come to regard as indispensible even though it may well happen that some feats of neural memory and thought that are so ordinary now will eventually be of lesser value.

Writing and printing are less causes of a faded cultivation of personal memories than of novel pallettes of uses for our brains. Even in contemporary society different people think differently under all sorts of influence. Not only genetics play their role, but also experience gathered by upbringing, formal education, specialized preoccupations, communal concerns and individual habits. A lawyer's mind does not routinely travel the same pathways as a carpenter's, and their conclusions are compiled at different mental destinations. And for society as a whole, we find that writing has changed man's very consciousness and that printing has caused a further change due to the mass production of books. This is well exposed and expressed in a wonderful, little book called **Orality and Literacy**, by Walter J. Ong. One must expect, by extrapolation, that the use of electronically supported minds will rapidly change man's consciousness further; that human brains will be engaged in a much altered mix of activities.

The changes in mental preoccupations, already so immensely variegated, cannot be uniform across the globe nor will they be in step within smaller communities. The differences show up as misunderstandings. And the potentials for conflict and strife are proportional to the tugs of those differences and, hence, we may expect turmoil to be exacerbated by the wider

gaps. Thus, either these gaps need be filled in under an alert and highly competent educational leadership or else their effect should be countered by the exertion of dictatorial power.

Computing is not merely a chronological extension of writing; it also adds to the very nature of our communications. It adds a form that allows not only man himself, but also his machine, to act coherently on what the record states. Thus, we see computer-generated displays on our monitors and, if not now, then soon, computed holographic presentations off-screen. To say nothing of robotics.

The Greek poet Aeschylus, before Socrates, regarded memory as the mother of all wisdom. Modern mankind, probably because literacy provides it with abundant extracranal storage capacity, has devalued personal memory in lieu of a logical train of thought routinely exercised by the properly educated individual. And it seems reasonable that tomorrow, with massive computing power in Everyman's breast pocket, mankind will be about to sneer a little at rote logic as a mental activity much like today we are apt to disparagingly dismiss mere rote memorization of "trivial" facts as an outstanding asset. "A good memory is generally joined to a weak judgement," wrote French essayist Montaigne in 1580.

Computers may make rote logic as communal (as democratic, if you wish) as the memory of facts. Thus, one may expect that our offspring will be consumers of logic more than carriers and producers. We might be inclined to regard them boring company as Socrates expected to find us to be. Looking at the bright side, however, computers allow mankind to climb another rung or two toward wisdom (see tableau). They provide our offspring with an opportunity to become, if properly educated, men and women of far better judgement than we are. Let's hope there will be time enough left for them to put that superior judgement to proper use. Their survival on this or some other planet may well depend on it.

Having contemplated the fate of humankind, our home team on this Spaceship Earth, if you wish, let us now turn to the players as individuals.

There are dire social consequences in the offing. Corollary with the difficulties encountered by illiterates who try to slip into the mainstream of contemporary life, one must expect that incomputents are bound to suffer similarly.

What common literacy is today was much rarer treasure yesterday, something possessed by only a few. I shall leave untouched the distinction between those of literate mind and those able to employ others' literacy through money or other means of exerting social power.

As with money, the scarcer literacy is, the more will the weak and meek be especially starved. Fortunately, the art of low-cost printing made it easier for literacy to florish and for the democratization of knowledge to make great strides. Because knowledge is power, diffusing knowledge is diffusing power. In parallel with the natural scientists' pressure = force / area, we might roughly think of this as power = knowledge / persons.

Unfortunately, even in literate countries there is still much so-called functional illiteracy. I cannot assess the social and psychological disorder this causes except to sense that it is quite serious.[1] And one must expect it to become worse when the increasing inequities due to incomputency are superimposed on the inequities due to illiteracy.[2]

One major inequity of incomputency must be the helplessness felt by those not able to assess and protect themselves against the influence of those in control of machine computation. Today, even highly educated people, among the cream of our academic crop, mostly accomodate themselves to this circumstance protesteven against a need to learn computation! But this will only be a short-term panacea. In the long run, this will not likely prevent violent shocks as the computer's influence gradually pushes incomputents off to the side or intrudes on them in some other manner and with increasing force.[3]

Illiterates depend on writers to produce their letters and they have little chance to check whether these properly convey their sentiments or even check on the competency of their scribe of choice. Similarly with incomputency. One aspect will be the utter dependence on programs written by others, programs not understood by their users, programs that may produce results that mislead, perhaps because of an overlooked contingency. This will be increasingly strongly felt if and when personal computing becomes a more valued part of our daily lives as reading and writing are now. With an eye to making personal choices, I once wrote that

> "a close electronic assistant for our neural brain can help us quickly sift chaff from wheat and do so any time we want it to. However, to employ such help we must know how to use it. And that includes knowing how to program, believe it or not.

---

1. Well, maybe we can assess it in some extreme case. Look at Bosnia!
2. Computency = computer literacy.
3. Recently, the Quebec Department of Education pescribed instruction in quantitative assessments for college students of social science. This confronted their professors with statistical analysis and with machine computation. The shock waves at my college, Dawson, have yet to die down.

"Those not skilled in reading and writing are more likely to be in the control of others. Unless we know how to make and read programs, we shall perforce depend on programs made by others experts, presumably, at writing programs–and, if we are lucky, experts also at solving exactly those problems we happen to encounter. Their algorithms will solve our problems the way they see them or, and here is one mean rub, wish to see them. There will be no opportunity to amend a computer program to suit one's very own personal needs, to solve problems in one's own way. Future-God shall be the Programmer. And insofar as we have not been brainwashed yet, we shall be soon.

"Programmer, Thy Will Be Done."[4]

And who might be this Future-God I wrote about six years ago? One candidate is Microsoft's Bill Gates. Let me quote from a favorite source:

"In essence, software plays the role of an electronic messenger: it delivers information, manipulating it as desired, to computer users. The message, the actual information, is put in by the user (words to be processed, for instance, or numbers to be crunched) or by professional suppliers (of training manuals or porn films). But with the messenger business increasingly beset by price wars, market saturation, soaring development costs and flagging margins, Mr Gates is looking for fresh profits in producing and selling the message itself.

"This will be no mere sideline. He expects Microsoft's consumer division, into which all its information activities are lumped, to be the firm's biggest within five years."[5]

Like personal writing, personal computing will bring a clutch of benefits, not the least desirable of which would be to keep the nice Mr. Gates and people with similarly, potentially threatening ambitions at bay through redemocratization. We must not walk into one more trap filled with monopolized, mass-produced answers that tend to be "the same always without concern for circumstance or audience" and whose application may be continually under attack by the sort of interminable litigation the computer industry has become infamous for. Let's refurbish the realm of personal education so that mankind may gain more personal freedom and have a go at a more harmonious society through better, all-around acceptable choices.

Imagine how more comfortable we would feel if we were able to make reliable, personal computer-aided assessments of the pros and cons of our stance vis-à-vis Somalia or Bosnia, or to the North American Free-Trade Agreement, or to selecting our representatives and heads of state. The redemocratization of society (a phrase I haven't tried to define because its meaning appears so transparent) requires an ability on the part of individuals to make better, agreed-upon choices, and do so faster.[6] Computers may help us gather and assess increasingly complex assortments of facts.

It is heartening to observe that the need for individual adaptation of programs is felt by others as well. "Software," I once read some years ago,

"can be made so simple that computer owners can modify programs to their taste without knowing anything about bits and bytes. 'Our whole interest,' says Apple's Kay, 'is letting ordinary people make tools for themselves. In the future you'll get an application out of the box and after a couple of weeks, you'll have some ideas and change it.'"[7]

But did you notice that ominous word? That word ordinary? It would not, by any chance, mean functionally incomputent, now would it?

Besides those potential calamities that are due to computational incompetency is our proclivity toward following false prophets and, hence, our infatigation with things IBM and Microsoft and, quite possibly, BASIC as a computer language for the masses (see "Future Shock" in *Current Notes* of April last).

Our primary interest is not computing, it is learning and how we shall put to good use what has been learned, be it in school or out. One form of learning is study, which is learning concentrated. It is literacy that permits study as we now know it, and it is computing that will permit study as we shall know it. Reflect for a moment on what Ong, mentioned earlier, wrote in the context of language study,

"All thought, including that in primary oral cultures, is to some degree analytic: it breaks its materials into various components. But abstractly sequential, classificatory, explanatory examination of phenomena or of stated truths is impossible without writing and reading. Human beings in primary oral cultures, those untouched by writing in any form, learn a great deal and possess and practice great wisdom, but they do not study.

"They learn by apprenticeship, by listening, by repeating what they hear, by mastering proverbs and ways of combining and recombining them, by assimilating other formulary materials, by participation in a kind of corporate retrospection, not by study in the strict sense.

"When study in the strict sense of extended sequential analysis becomes possible with the interiorization of writing, one of the first things that literates often study is language itself and its uses."[8]

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4. **Literacy Across The Curriculum,** Dawson College, 4:1 (Nov. 1987), p.2.
5. "The Future of Microsoft," The Economist, May 22, 1993, pp. 25-27
6. For choice precedes will.
7. **Newsweek**, Oct. 24, 1988, p.54.
8. Walter J. Ong, **Orality and Literacy: The Technologizing of the Word.** Methuen, 1982.

Study, we well know, requires careful attention to words to the point even of often giving precise descriptions of words' meanings and contexts. Defining words, for example, is an art no student can escape–see Knowledge of terminology in the accompanying tableau.

Thus, literacy plays a unique role in learning. The next question is whether, in similar vein, computing will (or, perhaps, already does) also play a unique, beneficial role.

I can only be brief for now and I shall simply quote Seymour Papert of MIT, a man whose name is inseparably associated with computing and intellectual development in children at a time in their lives where the domain of orality is made to overlap strongly with the domain of computency:

> "[The computer] puts the learner in a qualitative new kind of relationship to an important domain of knowledge. Even the best of educational television is limited to offering quantitative improvements in the kinds of learning that existed without it. Sesame Street might offer better and more engaging explanations than a child can get from some parents or nursery school teachers, but the child is still in a position of listening to explanations. By contrast, when a child learns to program, the process of learning is transformed. It becomes more active and self-directed. In particular, the knowledge is acquired for a recognizable personal purpose. The child does something with it. The new knowledge is a source of power and is experienced as such from the moment it begins to form in the child's mind."[9]

This brief quote barely does justice to Papert's extensive, highly disciplined work and thought. I like this quote because it promises a strengthening of the individual's potential for a flowering self, a selfworth, in a world ever complexing, but a world, also, in which our bearings are increasingly confused by the media, especially commercial television. It is with personal computing power that we may hold onto, or regain from the media's influence, our reigns on life. It is with the computer that the individual's critical exploration and assessment of facts can outwit people's uncritical indulgence of the media's indigestible dazzle.

And I justify my using the above quote from Papert because I want to convey the notion that if the transformation of learning is wrought at the very outset of people's academic careers, in children's exploratory stage, one may reasonably expect that ensuing lifetimes of practicing the best of orality, literacy and computency will produce persons mentally much advanced from where we now are in terms of intellectual utility as well as of their sense of worth.

Note: An entertaining and informative read on memory and literacy is found in Daniel J. Boorstin, **The Discoverers**, Random House, 1983. See "Part VIII: Widening the Communities of Knowledge." I think that the little books by Ong and Papert are pretty well essential reading for those interested in the new cognition with mind and machine twinned.

TABLEAU–Bloom's Parnassus

The Cognitive Domain

Knowledge
- Knowledge of specifics
  - *Knowledge of terminology*
  - *Knowledge of specific facts*
- Knowledge of ways and means of dealing with specifics
  - *Knowledge of conventions*
  - *Knowledge of trends and sequences*
  - *Knowledge of classification and categories*
  - *Knowledge of criteria*
  - *Knowledge of methodology*
- Knowledge of the universals and abstractions in a field
  - *Knowledge of principles and generalizations*
  - *Knowledge of theories and structures*

Comprehension
- Translation
- Interpretation
- Extrapolation

Application

Analysis
- Analysis of elements
- Analysis of relationships
- Analysis of organizational principles

Synthesis
- Production of a unique communication
- Production of a plan, or proposed set of operations
- Derivation of a set of abstract relations

Evaluation
- Judgement in terms of internal evidence
- Judgement in terms of external criteria

This hierarchy is known as Bloom's Taxonomy of the Cognitive Domain.[10] It serves as a guide for educators.

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[9] Seymour Papert, **Mindstorms**, Basic Books Inc., 1980. The quoted paragraph pertains to children exploring with LOGO, which is a computer language as well as a philosophy of education. I have no qualms endowing it here with a somewhat wider scope. And, by the way, what better LOGO than used to come with our STs?

[10] Benjamin S. Bloom (ed.), **Taxonomy of Educational Objectives, Handbook I: Cognitive Domain.** David McKay Company, New York, 1956.

SmpteTrack/EditTrack Platinum

Barefoot in the Park ... with Stefan?

Review by Michael D. Mortilla

Item:	*SmpteTrack (EditTrack)* Sequencing Software Package
From:	Barefoot Software, 818-727-7143, BBS 818-996-7659
Price:	*SmpteTrack Platinum*—$499 (with SmpteMate hardware box) *EditTrack Platinum*—$199 (same as *SmpteTrack* but w/o box) Upgrade from *EditTrack Gold* to *SmpteTrack Platinum*—$369
Copy Protection:	None
Available:	Only through dealers (call Barefoot for a dealer names)

On Key

Barefoot Software has recently upgraded their line of *SmpteTrack* sequencers for the ST/TT/Falcon from the "Gold" version to "Platinum." But much more than whistles and bells were added. The main screen has a whole new look (figure 1) and incorporates a unique feature of using "windows," which is being called "Tiles." Tiles cannot be moved around like a true window, but this allows for quick screen redraws, which speeds up processing time, which causes fewer MIDI delays, which increases your overall productivity. We'll get deeper into tiles later; but there are more features, which make this release even *more* attractive.

In Sync

The bane of many musicians using MIDI sequencers is the dreaded metronome. These little devices are great for practicing scales, but in the heat of the creative process, the idea is to be free to explore, not to be constrained to a pre-determined tempo and meter. Besides, human expression in music is never "dead on" the beat. We are inaccurate creatures, but our computers are extremely accurate. Some musicians (this writer included) have had to ignore the metronome at times so as not to have tempo and meter dictate what the result of our creative process is to be. The trade off in working this way with sequencers occurs when you go to score your work in a notation program. If you didn't follow the metronome, your printed music would have about as much resemblance to your intent as a pile of broken plaster has to a Ming vase. But not anymore!

"Beat Alignment" is here! Now you can play away without the metronome. When you're finished, you can replay the sequence and "tap" along (either on the downbeat or on every beat) and save the tapped track as a reference. Then *SmpteTrack* will go in and "align" the music to the reference track, create a very fine "tempo" track. Now when you play back the sequence, the computer's metronome matches *your* performance (and not the other way around.) Beat alignment is best done early in the process of creation as the more tracks you have to align, the longer it will take to do it.

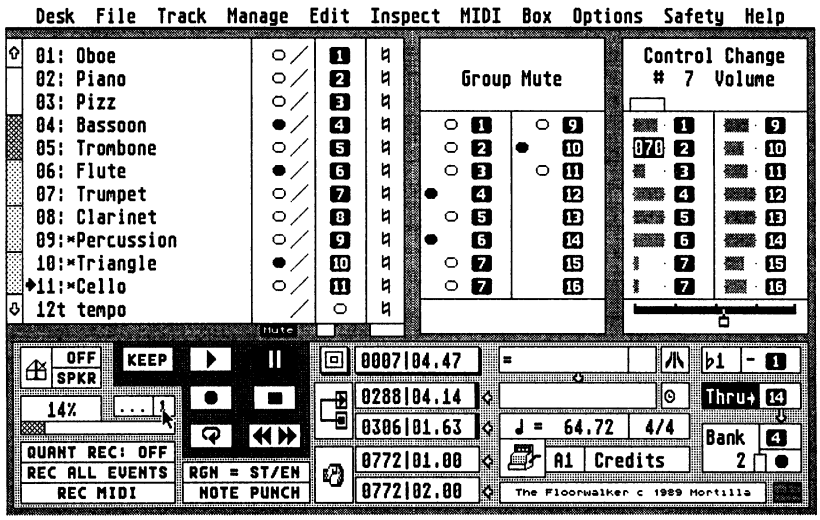


Figure 1. SmpteTrack main screen with tiles.

The repercussions of this feature are much deeper than simply getting a MIDI performance to match a metronome. Let's say you have a recording of an acoustic performance that you want to orchestrate using MIDI. You could sync to the tape with SmpteTrack, tap along to the recorded performance, and end up with a MIDI sequencer "template" which you could fill with your orchestration. Alternately, you could also play along with the recording and tap to your new MIDI track, also allowing you to align your meter and tempo with extreme accuracy. Before beat align, the only way to do this was to try and match the metronome in the computer to the beat of the recording. With fluctuations in human perform-

ance, that process could take longer than the process of orchestrating!

It is also no coincidence the program is called *SmpteTrack*. With the addition of the SmpteMate box, you can read and write most time code formats with precision. Starting and stopping are without a single "hiccup" and individual SMPTE start and stop times can be set for each register and section. *EditTrack* is virtually identical to *SmpteTrack* in *every* respect except you'll need a sync box from a third party to sync to tape or video (which may not be as smooth as using the Barefoot hardware.) Both programs will send and receive MIDI sync and auto-locate with Song Position Pointer as well as chase lock (updating controllers, patch changes, et al.)

A Garden of Earthly Delights

Another new and unique feature is the "weed duplicates" item. Frequently, in graphic editing, you find that a MIDI controller sent either two "notes on" with only one "note off" (or visa versa). Also, during the editing process, you may have inadvertently deleted a "note off" and not the "note on." This can wreak havoc! What you'll see on the screen is one *very* long note or a very short note that won't play properly. Go to edit it and another very long note appears at a different location. But if you "weed" the duplicate messages only, then your sequence will be free of the extraneous data. This will also improve how the sequence ports to your notation program.

In addition to "weeding" your performance, you can also opt to optimize, eliminate and replace controllers, pitch bends and aftertouch; adjust velocity; transpose; durate; humanize and quantize your music. Add to this features that alter time span (make that 32 second commercial fit into 29.97 seconds!), insert or remove time, "Zap" notes, move entire sections or paste copies of entire sections. All this right from the graphic screen with its "pop-up" menus (figure 2).

Next Stop ... The Graphic Zone

Selecting "zones" has been made easier than ever. From the Graphic screen, left-click and drag the mouse to define zone length, control-left-click and drag to define note *range* so that you can have the editing function work on a very narrow or a very wide rage of notes (figure 3).

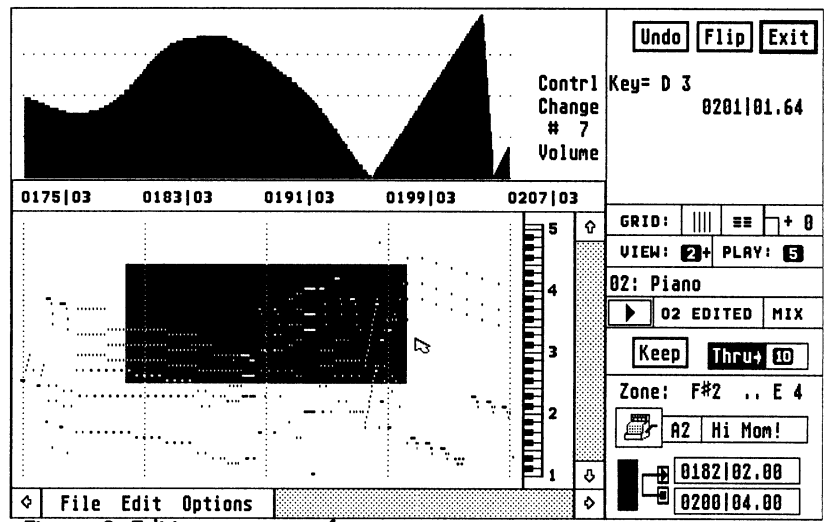


Figure 3. Editing a range of notes.

Also available from the graphic screen is the ability to solo a track, view a different track (and return to your edited track), lock in a register or section (pre-determined start and stop points based on measure/beat), change from displaying measures and beats to SMPTE times (available in both the *Smptetrack* ***and*** *EditTrack* versions!), view different MIDI channels on the same track (or all MIDI channels at once), "flip" to list, or event editing, change tempo, update the current file or save a new song file! All this from the graphic editor! And if you're not happy with the end result, you can either "undo" the last edit or "undo" the entire graphic session. Happy with what you have, but want to make a quick change on an adjacent track? No problem. "Keep" the graphic session to that point, go to the exact same point in the graphic screen of another track (you can even save the previous track to a new location with a new name!), edit the second (or third, or fourth) track, return to the one you were working on and continue. All along, you can save and/or update your file on disk!

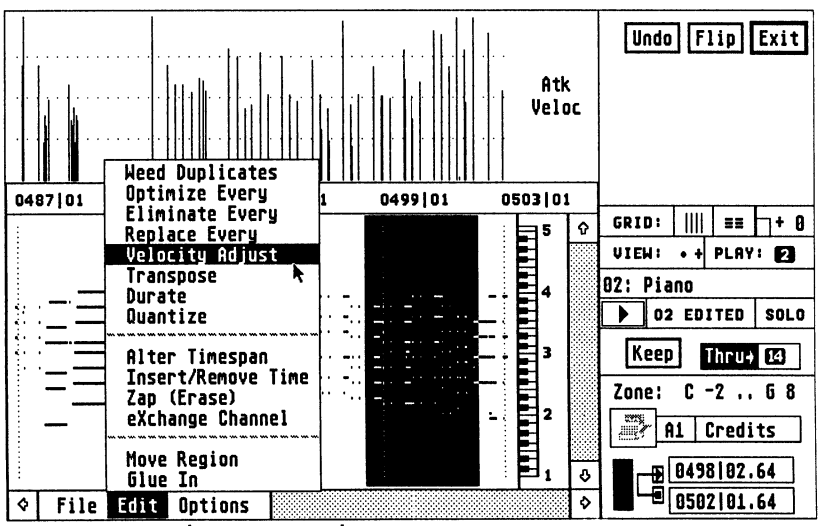


Figure 2. Graphic screen with popup menus.

Down on Main Street

Well, if that isn't enough for you, we still haven't covered the *main* screen. There are key command macros to automate the simplest and the most complex procedures; key command triggers (to control *all* aspects of the program from *any* MIDI device; a *very* serious quantize screen with the ability to name and save your own "grooves;" patch *and bank* select for all your MIDI gear; set-up of individual channels (number of patches and banks; exclusion from global transpose; metronome options (play by MIDI, computer speaker, off, on or only on when "recording;" independent looping of tracks or *sections* of tracks; chaining sections with nesting; global transpose (with exclusions as you desire); recording of "tempo tracks;" several ways to display SMPTE time (elapsed time for sections, from start of sequence, off-set from start time etc.) which is also available in *EditTrack*; count-off measures; group muting; individual muting and soloing; off-setting individual tracks in real time and *real-time velocity adjustment* without disturbing the original data. Add to this instant shadowing; independent thru-ing of MIDI channels; safety and help menus and you have what many consider to be the most comprehensive MIDI sequencer available on any platform.

Que Sera Sera

Believe me, I have only scratched the surface on this one. Author Stefan Daystrom has pulled out all the stops this time. But is he satisfied yet? NOT! There are plans for an even more comprehensive update to the program. In the future, we can look forward to even more features (I can barely think of one..., let's see AUDIOTRACKS?) Wow! More tile options (right now we have control tiles (figure 1), joystick tiles (figure 4) and the ability to view 24 tracks at the same time (figure 5))! And while all this might seem like a lot to put into one program, it couldn't be

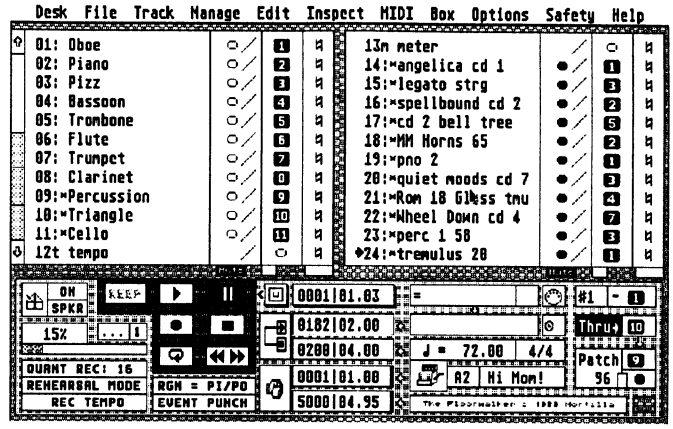


Figure 5. View all 24 tracks simultaneously.

easier to work in. All functions are user-friendly and highly intuitive. Screens are clear and bugs swatted.

Now if you're a power user, and manage to push the program so far that you find a problem or confusing situation, help is as far as your modem! Program author Stefan Daystrom is available at Barefoot's own BBS or in the CompuServe MIDI forum (Go MIDIAVEN). You'll also find demos of the program as well as support files and other "stuff" you will love! Of course, you can always call Barefoot and speak to charming Dana and the savvy Brad for "real-time" tech support.

C'mon, Let's See It All!

Now as a stand alone program, *Smptetrack/EditTrack* is incredible. You can also add a MIDIPlexer ($299) to give you a total of 64 MIDI channels–out of four "ports"–(A, B, C, and D). Each port and channel are independently configurable from within the program. Had enough? You can also add *GenEd it* ($199) for your editor/librarian needs. The MIDIPlexer is fully supported and version 2.10 of *GenEdit* now works on the Falcon. For a very nominal cost, you can also add *HybriSwitch*, which allows you to switch between *Smptetrack* and *GenEdit* and not quit either!

I don't know about you, but *I've* got enough here to keep me busy for a while. But just when you thought it was safe to put your Visa card away, Barefoot is on the verge of releasing *SharpScore*. This is not an upgrade to their earlier notation program (*EZ Score*) but a whole new import from England. We haven't seen this one yet, but it's expected to retail for $499. If Barefoot's other programs are any indication (I just love the studio set-up in *GenEdit*), then all your sequencing, editor/librarian *and* notation needs can be filled by one company. Barefoot's got you covered.

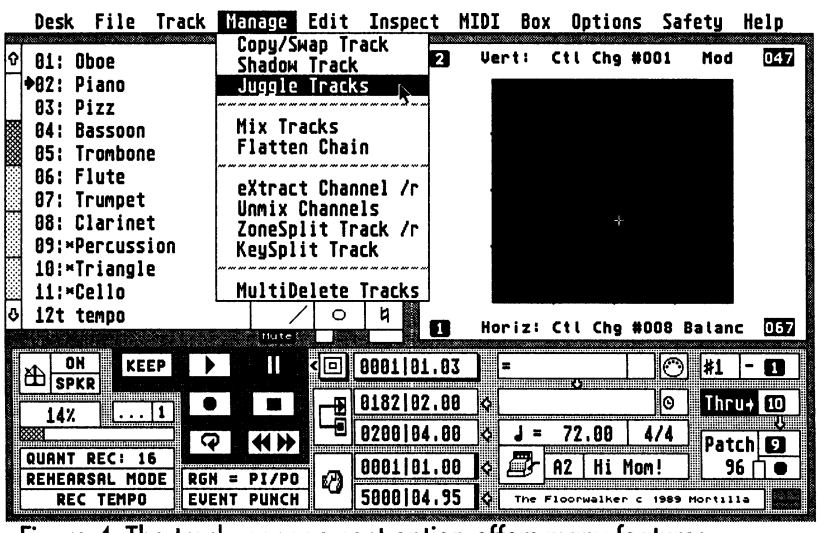
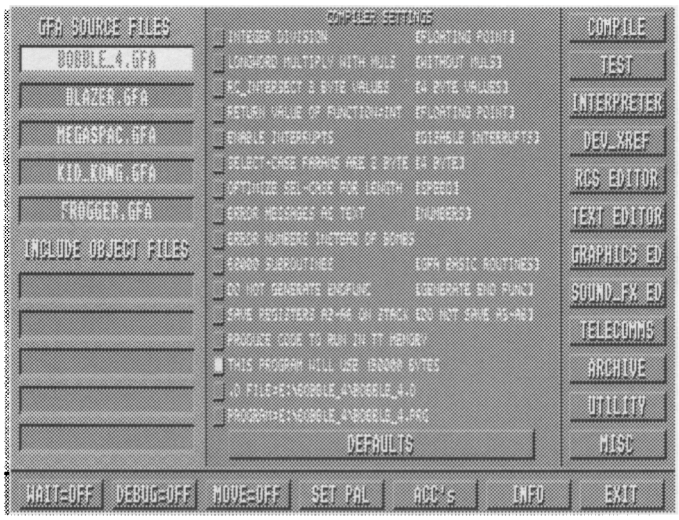


Figure 4. The track management option offers many features.



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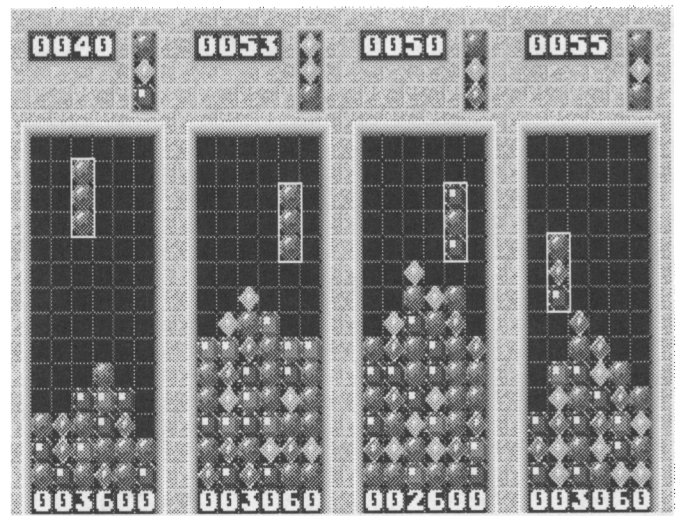

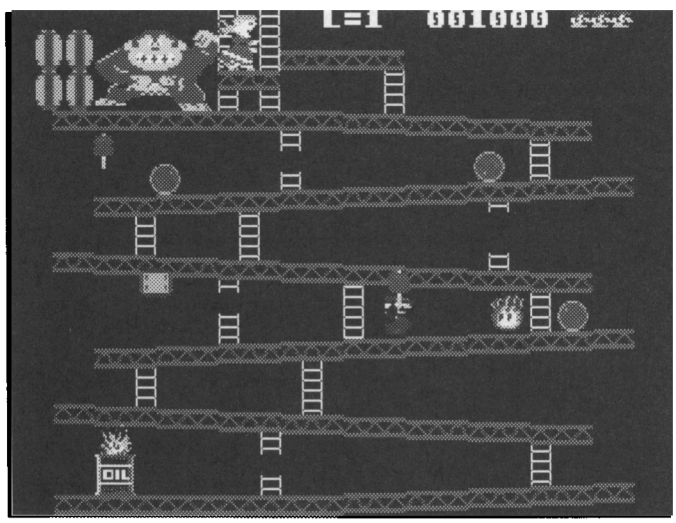

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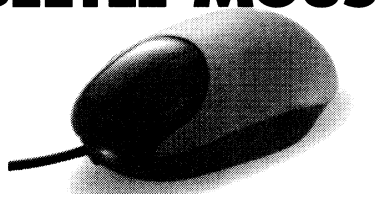

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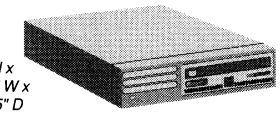

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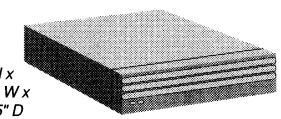

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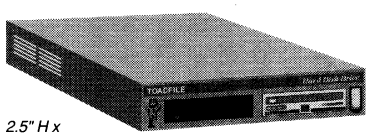

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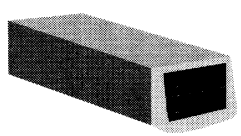

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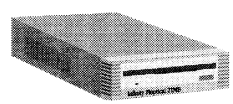

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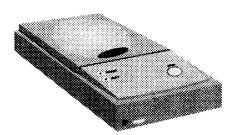

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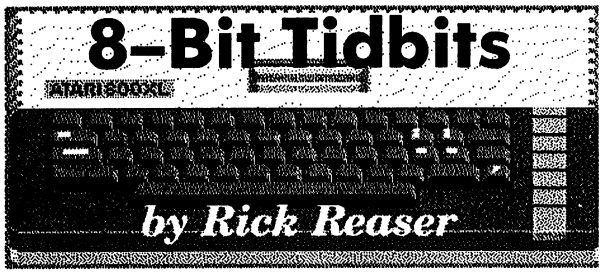


California 8-Bittin'

1 Aug 93

My brief interlude with my family here in Southern California is over. I had the opportunity to check out some of the local 8-bit action (which isn't much) and will report on that later in my column. I'm now at another school at Fort Belvoir, here in Northern Virginia. I'll be at this school until 10 December, so it's another extended period away from my family. My latest temporary address in is the front of the magazine.

Due to some mixups with the movers, I ended up packing my equipment in my suitcase, amongst my clothes. It all got here safely. I'm back up on GEnie and CompuServe. I have yet to figure a way to hook into FidoNet. I'm actually finishing up this month's installment using the TV in my room as a monitor. Let's see an IBM guy do that!

Bolt's Electronic Repair Service

While in California, I had the opportunity to visit one of the last Atari Corporation certified 8-bit repair shops in existence. It's run by Joe Bolt. Joe has spent 36 years in aerospace and bought his first Atari in 1979. He formed one of the first Atari User Groups in 1980 out in the San Fernando Valley, the West Valley Atari User Group (WVAUG). His club had 750 members at one time. Joe's been repairing Atari Computers as a business since 1982. Eleven years later, he's repaired 11,000 units–8-bit and ST. At one time, he had four technicians working in his shop, which is an addition to his home. His kids worked their way through college working in the shop. Now Joe specializes in 8-bits. He gets referrals from the "Sunnyvale Main Office." Machines come in from all over North America for various repairs.

My dad and I went to Joe's shop to have him look at my 800XL and 850, which were getting squirrely on me. We also wanted to see if Joe could burn some EPROMS for our ailing DaiseyWriter 2000 printers. I knew I had come to the right place when the guy who answered the door had an Atari T-shirt on. Joe has a fully equipped electronics repair shop, with the full complement of technical manuals, diagnostic cartridges and disks as well as test equipment. Very impressive! For those of you who remember, Joe was a pioneer in developing fixes for the early 810 and 1050 disk drives that had overheating, speed control and other problems. Atari eventually corrected these problems, using some of Joe's ideas. We had a very pleasant visit. For further information please contact:

Bolt's Electronic Repair Service
15737 Lemarsh Street
Sepulveda, CA 91343
(818) 893-9664

Surplus Computer Software

Another place I visited in California was Surplus ComputerSoftware. Someone on FidoNet highly recommended the place, so I just had to check it out. I stopped at the store on my way home from taking my 8-year old son to a distant water park. The place was like a time machine. Not only did they carry Atari 8-bit items, but Commodore, Apple][, CPM, TI-99, Sinclair, as well as IBM, Mac and ST stuff. Basically, they buy out the stock from stores who don't want to carry things anymore or want to get rid of things. Their goal is to have the cheapest prices known to mankind. They come very close to delivering. Here are some of the titles I saw at the store, which represent maybe 5% of what's there for the 8-bit.

Boulderdash Const. Set	Rear Guard
Spy vs. Spy	Archon Cartridge
D-Bug	Zaxxon
AwardWare	AEL Titles
L.A. Swat	MicroIllustrator
Vorrak	Stratos

Return of the Jedi Cartridge

They are working on a list of available titles. They had a lot of different MIDI software by Dr. T and Hybrid Arts for STs. I wish I had had more time to dig around and go through the shelves. Prices range between $5 and $15. I picked up an American Educational Learning (AEL) program on learning words for my 5-year-old daughter and a Jedi cartridge for my boy. For further information, please contact:

Surplus Computer Software
3301 S. Harbor Blvd.
Santa Ana, CA 92704
Voice (714) 751-2667
FAX (714) 751-0914

Elsewhere in This Issue

This month's "mini-theme" is on 8-bit business programs. Veteran writer, Mike Todd, provides us

with a look at Wes Newell's *Small Business Manager for the 130* or *SBM130*. Mike had to get hold of a *BasicXE* cartridge to do the review (which I failed to inform him about, before I sent him the review copy. Sorry about that, Mike.) Dennis Kline, who is new to *Current Notes* reviews MoonSoft's *Small Business System* or *SBS*. What's unusual about both programs is that they are still supported by the authors and readily available to us 8-bitters. Special thanks are due to Ben Martnick of Black Moon Systems and Wes Newell for providing the review copies of the programs. Let me tell you a little more about Dennis Kline.

B&C ComputerVisions recommended that *CN* do a review of *SBS* since the program had been selling well. When I set out on my quest to find a reviewer, Dennis was recommended by Alex Pignato. I called Dennis "cold" and he agreed to do the review. Dennis has been an avid 8-bitter since the beginning. In fact, he's one of the original "Ol' Hackers." Dennis has spent time in the banking industry as a credit analyst and loan officer. He went on to become Controller of a fairly large company. Dennis now runs his own business. He is eminently qualified to review a business program.

This month, we are going to take a break from our continuing series on *TextPRO* macros. *But*, we aren't going to take a break from Frank Walters. Before Frank leads us into new frontiers in the *TextPRO* macro world, he's going to take us on short side tour into "type-in" programs. Why? Because the next couple macros he's going to lead us through might prove a bit challenging to type in. The problem that most of you have probably noticed is that when you type in a macro, most of the characters on the screen are "control characters." "Control characters" have always been hard to show in magazines and hard to convey in articles. This month, Frank is going to show us how to "type in" these sometimes difficult characters using data statements and a short basic program. Armed with this tool, we'll proceed with parts 5, and possibly 6, of Frank's four part series in future issues of *CN*.

GEnie News

The *Current Notes* and *ST Informer* Real Time Conference (RTC) on 14 July went quite well. You can probably read about it elsewhere in this issue. There is also a complete, edited, transcript available on GEnie. Participation from the 8-bit side was quite good, in my opinion, since the 8-bitters had to venture into the somewhat "unknown territory" of Page 475 on the ST part of GEnie. It was a lot of fun, though sometimes chaotic. The RTC media requires some patience as well as discipline to be effective. Even then, it isn't the most efficient means of communication. There certainly were a lot of happy spirits present and a lot of good humor.

GEnie 8-bit SysOp Craig S. Thom continues to spruce up the ATARI8 Round Table. He is personally crossposting the comp.sys.atari8 Internet Digests into the Library for downloading–in ATASCII yet! The free special treat is still a regular monthly event on GEnie. *And* Craig is starting to post the month's Uploaders and message posters in the banner! Check it out.

CompuServe News and a Tip

The CompuServe Atari 8-bit Forum recently added a new section to its message base. The new Section 15 deals with Atari's upcoming Jaguar interactive game machine. The banter in this section has been really good, with third party developers discussing plans for support and "talking technical." Here is an incredible amount of message activity in this section and the Jaguar looks to be a most impressive machine. *But*, after a month or so of following along, I'm not interested in reading about Jaguar every time I *browse* the Forum Message base. What to do?

It's possible to "deselect" sections from your user profile in the Forum, either temporarily or permanently. SysOp Don Lebow recently shared this tip with me. To "deselect" sections, type:

OPT;SEC

at the forum prompt. You'll see a list of currently enabled message sections (those with an asterisk). Then type the number of the section you wish to deselect, in this case, "15," and it should toggle to no asterisk. Hit [RETURN] to exit, and specify Permanent change, when prompted.

If you are uncomfortable with "command mode" as shown above, select "Options" at the main top menu for the forum, then pick "Sections" or "Sec" at the subsequent menu that appears.

FidoNet Update

Since moving from Alabama, I haven't found a good way to hook into FidoNet. I'm investigating options for how to do that here in Virginia and will let you know how that comes along.

In the meantime, the Atari 8-bit Echo has gone international. Several European boards now participate regularly. They are located in Italy, Holland and Germany. At least five boards have been spotted. European boards have a "2" as the first digit in their node numbers. We've had a few problems with messages being in other languages. We yanks do our best to provide translations when needed. Of course, sometimes things get mixed up in the translation. For instance, in German, "kaufen" means to buy while "verkaufen" means to sell. We've had a few instances where sellers have tried to sell to sellers. At any rate, it's pretty neat to be able to send messages to other countries via your local BBS.

Connect Magazine

You may recall that Bill and Patti Rayl of *AIM* fame decided to start a new magazine. *Atari Interface Magazine* has pretty much petered out, though there were indications by the Rayls that they were working on another issue like the one that came out this past Spring. We'll see. I thought you'd be interested in hearing about the Rayl's new magazine called *Connect, The Modem User's Resource.*

I had a tough time finding an issue of *Connect* to review. I finally tracked down a copy at Circus of Books II in West Hollywood. For those of you who know anything about W. Hollywood, let me say this; it was a real circus, and there were many unnatural "connections" (GWM seeks GWM) being made at the bookstore.

I have the issue labeled Volume 1, Number 2. There is no month and year printed anywhere on the magazine–probably a lesson from the Rayl's *AIM* experience. It is a high quality printing job with glossy pages and cover. It even has 24 color pages. Including covers, the total page count was 84. The publisher is Donald Neff and there are a number of staff/editorial columnists including Michael Banks, who has written a number of computer-related books.

Connect also offers a Computer BBS Edition that "includes articles from *Connect*, added late-breaking news and a special section containing business, marketing and legal tips designed especially for BBS SysOps." It wasn't clear if there was a charge for this. Additional information on this product is available on page 610 on GEnie (the BBS RT).

Here are a couple of trivia notes. "Unsolicited articles/submissions for inclusion in *Connect* can be sent on disk (Mac or IBM 3.5" formats)..." Are the Atari-roots gone or too embarrassing? Interestingly, *Connect* is published by Pegasus Publishing. You will recall that *AIM* was also published by another mythical horse, Unicorn Publishing.

The basic idea behind *Connect* is to cover numerous telecomputing services for numerous computer platforms. General telecomputing and modem-type information is a part of the format as well. *Connect* covers GEnie, CompuServe, Delphi, Prodigy, America Online, BIX, Internet, The Sierra Network, etc. Articles are generally geared for specific platforms like IBM PC, Mac, Amiga, Atari ST, etc. That's 8 services times 4 platforms equals 32 possible article types. If I only have one service and one platform, I only get something about my situation 3% of the time. Of course, some articles are general in nature or cover more than one platform or service. This raises the percentage quite a bit, but you can see the potential pitfall of *Connect*. It's the same reason many 8-bitters are reluctant to subscribe to *CN*. A lot of the magazine may not be of interest to them. Apparently, however, there is a market for this type of magazine. While searching for *Connect*, I ran across three other established magazines along the same vein–*Online Access, BBS Caller's Digest* and *Boardwatch*.

I thought the writing was good. The layout was well done and had a reasonable number of ads. (I like ads.) There are lots of pictures, screen shots and graphics. I learned a lot about the telecomputing services I don't have (and probably can't afford.) Actually, there were many tidbits I enjoyed, but then again, I'm an "Information Highways" kinda guy. Before you rush out and get a subscription as an 8-bitter, I recommend picking up an individual copy and perusing it.

A 6-issue subscription to *Connect* is $18 US/$30 Canadian. My newsstand copy was $4.25. No publication frequency was specified anywhere in the magazine. (Probably another lesson from *AIM*.) For further information, please contact.

Connect
3487 Braeburn Circle
Ann Arbor, MI 48108
GEnie: connect.mag
CompuServe: 70007,4640
Internet: pegasus@cyberspace.org

National Information Superhighway Update

The Clinton Administration appears to be taking the concept of "Information Highways" quite seriously and is putting "its money where its mouth is." Some of this is probably in reaction to things that happened during the last Presidential campaign. Some of it is just the right thing to do. Here are few items I picked up and checked out from a technical journal I get (*Signal Magazine*) as well as *Connect*.

The White House is now on GEnie and CompuServe. On CompuServe, you GO WHITEHOUSE. If you want to send the President some E-Mail on CompuServe, the address is: 75300,3115. The White House Forum on GEnie is on page 1600. (Real Cute! Send me e-mail, if you don't get it.) You can also use the keyword WHITEHOUSE. There is a menu selection on page 1600 which also allows you to send e-mail as well. Now, 8-bitters with modems have a direct line to the President.

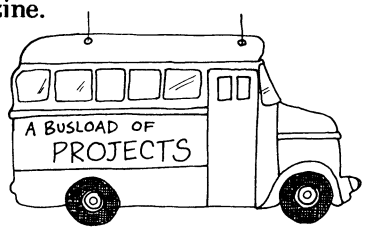
More than 50 federal departments and agencies are opening up their electronic databases to the public via "Federal World." The general public can now browse and download thousands of federal computer data files and programs. Call (703) 487-4068 for more info or (703) 321-8020 with your modem (VT-100 or ANSI required).

The town of Blacksburg, Virginia is getting ready to become the first "Electronic Village." They are building a community-wide information network based on the Integrated Services Digital Network. The project will establish a huge Local Area Network with high speed communication lines and modems at

the local University (Virginia Tech), retail businesses and residences. The possible uses of the system are endless, from sending vital signs to your doctor from home, to "over the wire" parent teacher conferences. Right now, C&P Telephone/Bell Atlantic is providing most of the money for the project. The effort will be used to demonstrate the value of the proposed national information infrastructure. As usual, the big issue will be who pays for the national highway if adopted and how user fees would be assessed and collected.

We 8-bitters already own a piece of the Information Superhighway with our Forums, Roundtables, Echos, NewsGroups and Message bases on CompuServe, GEnie, Fidonet, Internet and local BBS's. So in a sense, we are Information Superhighway pioneers. If you don't have a modem yet, get on the Highway now. You'll be amazed where it can take you.

That's all for this month. You can contact me via the snail mail or e-mail addresses listed at the front of the magazine.



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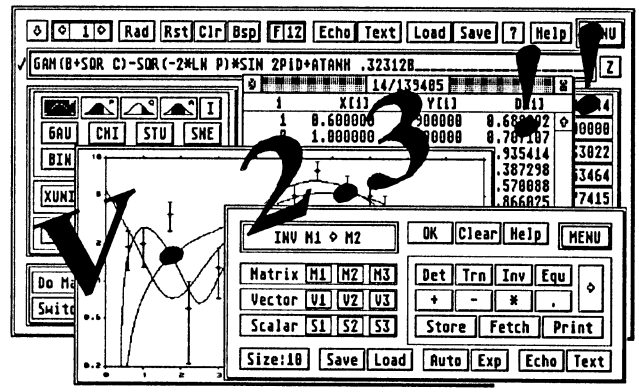
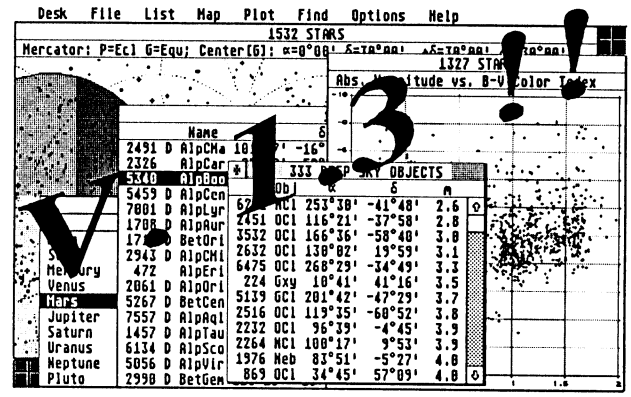


From senior high to Fermilab - if you do any engineering or scientific calculations, then you need this program.

* Numerical integration, differentiation * Systems of linear, non-linear and differential equations * Vector and matrix operations * Multi-dimensional function optimization * Mean, standard deviation * Function and data plots * Linear regression, correlation * Polynomial least squares * Multi-parameter point and histogram fits * Unit conversion * Roots of square, cubic, quartic equations

Version 2.3 plots in color, runs in the new Falcon resolutions (also in TT High and Medium). **$63.**

Star Base



* 9000+ brightest stars * 300 deep sky objects * Planets, comets, Sun and Moon * Various projections, reference frames and map ranges * Choice of observer's location and time * Mapping, browsing, database manipulation * Object search, selection and identification * Hertzsprung-Russel diagram * Planet and comet path plotting

Version 1.3 uses color for maps, works in Falcon resolutions (also in TT High and Medium). **$43.**

Min Cal

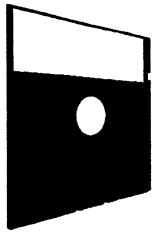
El Cal's little brother: a scientific calculator accessory, with the same expression parser and the most powerful function set on the market (95 total). **$15.**

Big Sky

An extra data base with 40,000+ stars and 4,000 deep sky objects. For **Star Base 1.1** or higher. Hard drive recommended. **$22.**

All programs run on any Atari ST, Mega, STE, TT or Falcon, color or monochrome (Gemulator/VGA OK, too). All need 1 MByte of RAM. Prices as shown include shipping. When ordering two products, deduct $6, and $4 for each next. Outside continental US please add $5. Updates: first one free, then $5 each. Upgrades to El Cal 2.3 from 1.xx: $20

Send a check ($US on a US bank) or money order to **Debonair Software**, P.O.B. 521166, SLC, UT 84152-1166



Small Business System

Versatile Business Accounting for 8-bit Ataris

Review by Dennis Kline

Over the years, I've tried to use many different accounting programs in my Air-Freshener Service business. I tried *Visicalc*, *Accounts Receivable*, *The Bookkeeper*, *The Color Accountant*, *The Home Accountant*, *Peach Tree Accounting* and the list goes on and on. Each of those programs either had bugs or just took too long to do what I needed to do. Time was growing short and the frustration was getting on my nerves. I tried mixing programs and modifying them for my needs; however, that just didn't work. The closest solution was *Peach Tree*, but I still had to keep swapping several disks even after I modified it for three disk drives. *Syncalc* was also good but still frustrating.

Getting the Program

I was almost to the point of changing to an IBM Computer, which really shows my exasperation, since my first love is the Atari. (I've been an Atari user since the beginning–progressing from Atari 800 to my 800XL with 256K with two Happy 1050 drives and two plain 1050's.) Then one day I read in the Ol' Hackers newsletter about a new business program marketed by Black Moon Systems called *Small Business System* (*SBS*). (BTW, I'm still a member of Ol' Hackers even though I now live in Florida.) *SBS* seemed to be just what I was looking for. The price was right. I had nothing to lose. So, I ordered the program.

To my surprise, when I loaded *SBS* for the first time, I could not believe the Menu. My first thought was "this is an IBM program loading on my Atari computer." To my delight, I started playing with the program and found all my frustrations gone forever. The program was user friendly and it would run my entire business without having to make any modifications. It had just about everything I wanted, except it was missing "Accounts Receivable Reports." I found I could live with this problem. However, I wrote to Ben Martnick, the author of *SBS*, only to find that he was working on an upgrade that would include Accounts Receivable Reports. Ben said he would let me know when it was completed. It took about a year for the revision of *SBS* (version 1.4) to come out. I quickly sent in the small payment for the upgrade. The revision was worth waiting for. Again, when loading the new revision, I could not believe what his program could do.

Unbelievers

The central office from which I bought my distributorship uses three IBM Main Frame computers–recently upgraded to the tune of $12,000.00. When I showed them what my "outdated" Atari 800XL could do for mere peanuts, they could not believe it. They said I must have an IBM. I had to actually bring them to my house and run *SBS* before they were convinced.

SBS had features that their expensive program did not have. My invoices was exactly like theirs except I could "customize" mine with personalized notes like:

Thank you for your order
Merry Christmas & Happy New Year

or anything else that I wanted to add.

SBS Features

SBS has so many features it was like finding water in the hot desert. Let me give you a run down of the basic features of this great program. First of all, *SBS* is an inexpensive program. It comes with very easy-to-follow documentation contained in a loose leaf binder. If you have several different businesses, you can set up different data disks for each. If you manage a building, you can record rental income and expenses. Also, for your own personal income and expenses, note that *SBS* is a tax deductible expense if you use it to help keep records for Income Tax purposes. The program is menu driven. Sub-programs are called from the main menu, which allows you to choose from:

- Orders
- Reports
- Income Entry
- Expense Entry
- Inventory
- Company Set Up
- Utilities
- Change Defaults

After selecting one of these menu options, you are normally presented with another menu or entry screen. If you want to get back to a previous screen, you just hit [ESCAPE].

What I like most about the *SBS* is the ability to produce Invoices, Purchase Orders and Quotations with autonumbering. This is especially useful in my

service business since it helps me keep track of monthly payments. Also, under Reports, I can print out my Accounts Receivables so I always know at an instant who owes me and for what period of time. The Accounts Receivables Report shows what invoices are still due. All you have to do is specify a name or partial name in a search string. Then, before your eyes, you get a total amount and a breakdown with tax and shipping. The only snare here is that if you want an accurate balance report, you must edit out balances as they are paid. Since *SBS* uses standard file structures, this can be done using an ATASCII compatible word processor. Just make sure you make changes to your data disk. [Editor's Note: Be sure to use the same type of DOS with *SBS* as you do with your word processor. If you use *TextPRO* under *SpartaDOS 3.2* or higher, you can edit ATARI DOS *SBS* files as you would expect. Direct editing of *SBS* data files is explained in the *SBS* manual.–RR]

Other reports that can be generated are:

- Expense Reports
- Revenue Reports
- Profit/Loss Reports
- Sales and Tax Report
- Chart of Accounts

Included with *SBS* are *Label Master* and *Multi-Column Lister*, which come on a separate disk. Both are outstanding! With *Label Master*, I can print out customer labels up to six lines long and 34 characters across. *SBS* saves the Customer/Vendor addresses in the simple format that is used by *Label Master* (and *Multi-Column Lister*) so I can send out a mailing list to my customers without having to keep a separate database. *Multi-Column Lister* allows me to print out my customer addresses from one to six across, and, it works with just about any printer. This way I can use a variety of label types and make convenient customer address lists without wasting a lot of paper.

Printing

After compiling all my data, I can print my information using five different form choices. You can use plain 8 1/2 x 11, paper or tractor feed, with or without a company letterhead. Preprinted forms can also be used. Please note that if you need forms, labels or stationery for use with SBS, you can obtain them from:

NEBS
500 Main Street
Groton, MA 01471
(800) 225-9550

NEBS has the Moonsoft Software programs listed in their Directory of Software Business Forms Reference. When ordering, use Mail Code #95818 so that the 8-bit Atari gets the credit. Hopefully, this will help keep Moonsoft products in the NEBS catalog. A variety of sample forms and a NEBS catalog is included when you buy *SBS*.

"Speedkeys"

SBS supports user definable "Speedkeys," which can be used in the Reports and Expense Entry parts of the program. Rather than typing a whole word, you can type one letter and the whole word will be automatically "typed" into the invoice or report. The "Speedkeys" are not globally defined, so the same letter can mean different things at different places in the program, if that is your desire. For example, when making an expense entry, you could define the following "Speedkeys:"

```
A = Advertising
B = Bank Charges
C = Contributions
```

In the invoice section, you could define the shipping method "Speedkeys" like this:

```
C = Carrier Pidgeon
F = Federal Express
M = US Mail
U = UPS
R = Roadway Packaging System
```

Image Files

Another neat feature of *SBS* is its ability to save "Image files" of invoices, purchase orders and quotations. These are ATASCII images of what the printed version of these items would be. An *SBS* utility program allows you to print these at a later date or you can use an ATASCII word processor. This feature comes in handy if your printer is broken or you want to print everything out during another session.

Patches and Upgrades

The *SBS* is written in standard Atari BASIC. So you can customize it anyway you want for your own personal use. The author requests that you don't distribute modified versions of the program, since that would violate his copyright. Since *SBS* is written in Atari BASIC, it is very "patchable." A patch is a listed group of line numbers that, when entered into a BASIC program, will overwrite the existing lines and change the program.

In fact, the author provides several patches in the manual and describes how to make them. Several patches are provided on the program disk as well. In my recent conversation with Ben Martnick at Black Moon Systems, I learned that more patches are in the works with new surprises. I can't wait!

[Editor's Note: For more on patches, see Tom Andrews' excellent article, "Distributing Program Modifications," in the Jul/Aug '93 *Current Notes*.–RR]

System Requirements

SBS will run on any 48K Atari 8-bit computer. Standard Atari BASIC is required. *SBS* is compatible with *SpartaDOS X Cartridge*, *MyDOS*, *SpartaDOS 3.2* and of course, *Atari DOS*. It will work with a single disk drive, but multiple drives are recommended. *SBS* also supports enhanced and double density drives as well as UltraSpeed drives, as long as you're running the proper DOS.

For *SpartaDOS* and *MyDOS* users, *SBS* also lets you define default paths for the various types of data files stored by the program. This allows you to use the subdirectory feature provided by those DOSes.

SBS also allows you to use RAMDISKS. In fact, for printing, this is highly recommended to prevent wear and tear on your disk drives, which are accessed frequently during printing operations.

The program also supports the time/date function provided by the *SpartaDOS Jiffy Clock* or the ICD *R-TIME 8 Cartridge*. With TD ON, the program will "auto date" certain entries, like invoices.

SBS Support

Questions, comments or suggestions regarding SBS should be directed to:

Black Moon SyStems
P.O. Box 152
Wind Gap, PA 18091

Whenever I've had questions about *SBS*, Ben has been quick to respond.

Where to Get SBS

SBS costs $29.95 and includes *Multi-column Lister* and *Label Master*. *Multi-column Lister* and *Label Master* are also available separately for $9.95. At the present time, the only dealer in theUS handling *SBS* is:

B&C ComputerVisions
2730 Scott Blvd.
Santa Clara, CA 95050
(408) 986-9960
FAX:(408)986-9968

Conclusion

To sum up, *SBS* is an extremely versatile program applicable to a wide variety of uses and users. With its menu-driven approach and clearly written manual, SBS is a very easy program for beginners to use. If I had to grade *SBS* from A to F, I would give it an "A." I highly recommend it as an excellent investment.

The *SBS* manual doesn't specifically state how to use *SBS* with *SpartaDOS* or the time/date function. It's obvious that you'll need to copy all the files from the *SBS* disk to a *SpartaDOS* formatted disk. So do that first. To get the rest to work, you have to know a bit more about *SpartaDOS* than the average person. Here's how you do it.

SpartaDOS 3.2 and No R-TIME 8

Put **X32D.DOS** and **TDLINE.COM** on the disk. Make sure to **"BOOT X32D.DOS"** so SpartaDOS will load on boot up. Rename **AUTORUN.SYS** to **SBS.COM**. Create a **STARTUP.BAT** file with the following commands in it:

```
KEY OFF
TDLINE
TD ON
TIME
DATE
SBS
```

Enter the current time and date when prompted during the batch file.

SpartaDOS 3.2 and with R-TIME 8

Put **X32D.DOS** and **TDLINE.COM** on the disk. Make sure to **"BOOT X32D.DOS"** so SpartaDOS will load on boot up. Rename **AUTORUN.SYS** to **SBS.COM**. Create a **STARTUP.BAT** file with the following commands in it:

```
KEY OFF
TDLINE
TD ON
SBS
```

SpartaDOS X Cartridge and No R-TIME 8

Put a **CONFIG.SYS** file on the disk. Make sure the **CONFIG.SYS** file contains **DEVICE JIFFY** instead of **DEVICE CLOCK**. You don't need to rename **AUTORUN.SYS** unless you want to. Create an **AUTOEXEC.BAT** file with the following commands in it:

```
KEY OFF
TD ON
TIME
DATE
BASIC /N AUTORUN.SYS
```

Enter the current time and date when prompted during the batch file.

SpartaDOS X Cartridge with R-TIME 8

Put a **CONFIG.SYS** file on the disk. Make sure the **CONFIG.SYS** file contains **DEVICE CLOCK** instead of **DEVICE JIFFY**. You don't need to rename **AUTORUN.SYS** unless you want to. Create a **AUTOEXEC.BAT** file with the following commands in it:

```
KEY OFF
TD ON
BASIC /N AUTORUN.SYS
```

–R. Reaser

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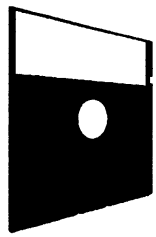


Small Business Management

for the Atari XE130

Entering the "Real World"

Review by Michael W. Todd

So, you've been bitten by the old entrepreneurial bug and you've decided it's time to make your mark on the business world. There are a great many needs out there that are crying out to be filled and you're just the one with the drive, energy, and ideas to be able to make it work. However, starting a new business is not an inexpensive proposition; you've got to make every dollar count. There's lots of things that need planning, contacts that have to be made, and systems to be set up to manage and run your new found business. It all seems so daunting at first and, like many small business owners just starting out on their first ventures, you've likely just begun to look to see what others have done. Sure, you could go out and upgrade your computer systems to handle what you believe you'll encounter, but why? Look at the cost of hardware, software, and learning time. You've had that 8-bit system for years, you know it backwards and forwards. Surely, it'll now be able to help you acquire your dreams.

In the Beginning...

The development of the program that was to become *Small Business Management for the 130 (SBM 130)* began in June of 1983 after the folks at Newell Industries became dissatisfied with the programs commercially available at the time. Put into use running their own business in November of 1983, development of *SBM 130* continued until September of 1984 when the first version was made available to the public. More than 1000 hours of development time have been put into creating what the folks at Newell Industries feel is the fastest, most versatile program of its kind on the market today.

A Lot of Power in a Small Package

Written entirely in *BasicXE*, *SBM 130* requires an Atari 130XE or upgraded 800XL able to fully utilize the *BasicXE* cartridge and extensions. Two disk drives of any capacity, an Epson FX-80 compatible dot matrix printer and compatible interface, and of course, *BasicXE*. *SBM 130* comes on a *MyDos 3* formatted disk but will run under any of the *AtariDos 2* compatibles as well as *SpartaDos 3.2d* and *SpartDos X*.

BasicXE is both *SBM 130's* greatest strength and its greatest weakness. The down side is that *BasicXE* is no longer produced. This, in itself coupled with the fact that *BasicXE* is still a very popular language, makes it somewhat hard to acquire, if you don't already possess the cartridge. However, being written in *BasicXE* allows *SBM 130* a lot of flexibility, speed, and clarity in its coding. The last part is very important, as no two businesses are run alike.

For a business program to be fully utilized, it must be flexible and adaptable. As I found out in the month of testing, *SBM 130* is very clearly written and even persons with just a general knowledge of Basic were able to easily change and adapt the code for their own use. Newell Industries goes so far as to include a list of variables in its documentation to assist you in modifying *SBM 130* to suit your needs. Don't be fooled by the slimness of *SBM 130's* documentation. If you're one of those people who think a program's power and usability is directly related to the thickness of its documentation, think again. *SBM 130* packs a lot of real power and expandability into one well written package.

The Program

So, just what is *SBM 130* and what does it do. The best way to start is to tell you what *SBM 130* isn't. *SBM 130* is not an accounting program. It won't keep track of your receivables and payables, nor will it handle your payroll. What *SBM 130* is, is a management tool for handling the nuts and bolts of your business. Using *SBM 130* allows you to keep track of your stock and its turnover. When items in your inventory reach low levels, *SBM 130* prints out a report to alert you. Purchase orders can be generated and incoming stock can be logged in. Using *SBM 130's* turnover report, you can keep track of which items are hot sellers and which are just sitting on your shelves.

Attention to customers and their accounts is always very important to a small business. *SBM 130* maintains a list of your customers and their balances so you can see a glance who your best customers are and who still have outstanding bills. Using the mailing list feature, you can generate mailing labels to alert customers of upcoming sales or to remind them of past due accounts. All these functions and many others are managed through an easy to follow menu driven environment.

As with any business management program though, it's best to have an idea of how you'll want to run your business before you begin setting up your program. One of the first things you'll need to do is thoroughly read the documentation that comes with *SBM 130*. Though the documentation seems small, there's a wealth of information and helpful tips buried within. It's well worth the effort of reading, as planning now will save you from having to reenter your data again later.

Running SBM 130

The first time you boot *SBM 130*, you're taken through the steps necessary to set up your master accounts and inventory disks. Each disk can hold a maximum of 2300 records; however, accounts and inventory files can span a large number of disks so there's never a need to worry about running out of room to grow. The next requirement is to input your inventory into *SBM 130's* data base. Part numbers can be up to 12 alphanumeric characters long so you're not limited to simply part number 1, 2, 3, etc, as I did the first time I set up *SBM 130*. With just a little planning, your inventory can be broken up into product groups (100-software, 200-hardware, 300-blank disks, 400-books). Setting your inventory up this way will come in handy later when you're quickly trying to look up an item number. For example, knowing an item is a book, all you'll have to do is scan the 400 group on your inventory print out.

This brings up what, to me, is a slight fault with *SBM 130*. There's no easy way to list the inventory or accounts to the screen after you've set up the disks. You've got to rely on having a current printout of your accounts and inventory available. While this isn't something major, it's something I found lacking in an otherwise well thought out system.

The thing you'll be spending most of your time doing is processing sales. *SBM 130* easily handles all your sales, keeping track of your daily totals, taxable sales, and taxes collected. Items are entered one at a time by item number, which is why it's always nice to have a current inventory printout around. When finished, an invoice is printed, your inventory is updated, and your sales information is recorded. One nice feature is, as each item is entered, its inventory entry is displayed, showing you how many you have on hand, your cost, the customer's cost, and the item's gross markup. Having this information gives you the freedom to make deals on the fly.

Maintaining accounts is the second thing you'll be spending your time on. Adding new accounts is as easy as typing "new" on the first line of the sales screen. There is, however, a problem that can arise here. You can enter a new account number without typing "new." *SBM 130* does not check to see if this is a new account, but just accepts the new account information without updating the master accounts file. The problem comes in when the next new account is entered in the proper way. The existing information is over written and, if there was a balance due, the wrong customer will end up on the outstanding balance list.

SBM 130 is capable of generating a wide range of reports, many of which I've already mentioned. In just a few minutes at the end of each day, you can quickly tell just how well you're doing, what's selling, which bills are still outstanding and for how long, and how well the day went. After only a short time studying the program, you, too, can set *SBM 130* up to generate any number of custom reports or, as I did, have *SBM 130* generate form letters using the information from its database.

My experience using *SBM 130* continues to prove my point that the 8-bit is far from a dead system.

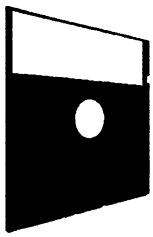
Testing SBM 130 in the Real World

So, how did I go about putting *SBM 130* through its paces? Well, the first time I set up *SBM 130* was in a small architectural office that sells some 20 pieces of software by mail order. This quickly proved too limited a test. So, having a friend who just happens to run a war gaming mail order business out of the warehouse in which he lives, I packed up my 130XE, ATR8000, double-sided double-density drives, and Seikosha printer and spent the next month running his business through my Atari. Once I found the rhythm, *SBM 130* proved itself to be a perfectly reliable program that met every need I'd came up with. Being totally written in *BasicXE* made it extremely easy to add new features and adapt the program to do everything I wanted it to do.

A pet expression of mine is "Finding a real world use." My experience using *SBM 130* continues to prove my point that the 8-bit is far from a dead system. With the help of fine programs like Newell Industries *Small Business Management*, those uses now include the running of small retail and mail order businesses.

SBM 130 is still sold and supported by Newell Industries. The cost is only $49.95 for the 8-bit version. Versions for the ST and IBM are also available.

[Newell Industries, P.O. Box 253, Wylie, TX. 75098. Phone: (214) 442-6612.]



Magazine Type-In Listings

Checksums and Beyond

by Frank Walters

BASIC Beginnings

I learned how to program in BASIC by typing program listings from magazines. My main problem, when I started and knew little about BASIC, was that the listings had no checksums to insure I typed each line correctly. You had to run the program and then find all the errors you could. If there were actual errors in the printed listing, then it was almost hopeless.

Eventually, I got pretty good at it, and along came some type-in utility programs, and the listings started to include little checksum letters alongside the line numbers to check your lines when you entered them. *Compute!* had *Proofreader*; *Analog* had *D:Check*, *Unicheck*, and finally *BASIC Editor* (BASEDIT.LST); and *Antic* had various versions of *TYPO* and *TYPO2*. Coincidentally, *BASIC Editor* and *TYPO2* computed the exact same 2-letter checksums, so you could use either one for typing BASIC programs from either *Analog* or *Antic*. I preferred *TYPO2* because I was more familiar with it, but I also found that *BASIC Editor* was pretty good after I used it a bit.

From BASIC to Machine Language

Machine language or binary listings were a mess. *Compute!* came out with *MLX*, which had bugs in the first program listing, which you had to correct the next month. I eventually got *SpeedScript* typed in and *SpeedCalc* later on and they worked fine. *Antic* stuck pretty much with a BASIC loader program combined with a bunch of DATA statements. You even had to retype most of each loader for every program or edit part of a previously saved loader. That was kind of redundant.

Analog had those terrible listings with long DATA lines of hexidecimal numbers with no commas or spacing except at the end of each line. I hated those things; they gave me eyestrain. They did teach me one thing: how to touch-type numbers. I had neglected the number exercises when I taught myself touch-typing from a 1905 Gregg typing manual. But Clay Walnum came up with a winner when he became editor of *Analog*, with his *MLEDIT* type-in program for binary listings. This is the one that listed DATA lines of 16 items plus a checksum, starting at line 1000. Each DATA item was the ATASCII value of a byte in the program file. You typed in just the numbers and checksum and the program wrote the file to disk. It made you correct your mistakes before it wrote each line to disk. It seemed foolproof and I wondered how the checksums worked.

Decoding the Checksum

I examined *MLEDIT* and found an interesting method of computing the checksums. Here is how it figured the checksum at the end of each line.

The checksum starts at zero (0) for each line. Each DATA item is multiplied by its position in the line and added to the previous checksum. Here is an example:

```
1000 DATA 80,79,75,69,56,50,44,50,58,67,76,82,58,68,73,46,9576
```

Item 1 in line 1000 is 80, times 1 equals 80 plus 0 (since each line begins with checksum of 0). Now the checksum is 80. Each checksum is then compared to 9999 and if it is above 9999, 10,000 is subtracted from the checksum so the result will never be more than four digits.

Item 2 is 79 x 2 = 158 plus 80 (the checksum left over from the previous item) equals 223, which is not above 9999.

Item 3 is 75 x 3 = 225 + 223 = 448. It is still under 10,000. This goes on until DATA item #16. Once a checksum has been computed for the last item (#16), the line number is added to that checksum, compared to 9999 and the result is included as item #17 in the DATA line. 9576 includes the line number in the above example.

You can see there is a check for the value of each DATA item, as well as its position in the line, so you can't transpose two items and get the same checksum. Also you can have two identical lines of DATA with different checksums because the line numbers are different. Interesting system, I thought. We had a single page newsletter in our user group. If I could convert a small file into DATA statements using Clay Walnum's checksum system, we could print the DATA lines in the newsletter and our members could type in the program using *MLEDIT*. I was thinking about short machine language subroutines (USR), device handlers, and the like.

That's how I came up with *OBJ2DATA*, which I will discuss in more detail, later in this article. *OBJ2DATA* (Object Code to Data Lines) reads 16 bytes of a file at

a time and writes a BASIC DATA line to another file, computing the checksum and adding it to the end of the line, thus duplicating the *Analog* system of printing ML listings.

Testing My Efforts

Now I had to test *OBJ2DATA*. I used *MLEDIT* to convert some DATA lines into object code. Then I ran *OBJ2DATA* on that object code and got the same DATA lines back! Then I wrote a companion program that allowed me to test longer DATA listings without typing them one line at a time with *MLEDIT*. I called this "test" program *DATA2OBJ* (Data Lines to Object Code). I LISTed *DATA2OBJ* to disk so I could merge it with the DATA lines beginning at line 1000. I ran it and it reproduced the original file, with the exception of some nulls (0) added to the new file if the size was not exactly divisable by 16. There was no way to use a DATA line with fewer than 16 items or it would not be compatible with *MLEDIT*. So I had to accept the "padding" with the program. *Analog* seemed satisfied to do so. In most cases, the padding didn't matter. If you needed to, you could always load the padded file into *TextPRO*, delete the nulls at the end and re-save it.

I found another use for my "test" program. If someone did not have *MLEDIT*, they could simply type in the BASIC DATA lines and LIST them to disk. Then merge that listing with DATA2OBJ.LST, using ENTER, to create the binary file.

I made sure my *DATA2OBJ* program verified the checksums in each line. If a checksum mismatch occurred, it would delete the file being created and end the program, telling you which line number has the error and listing that line on screen for you to correct it. You don't even have to save your correction. Just run the program again and see if it stops at a higher line. Continue making your corrections until it writes the whole program to disk. If you can use a RAMDISK for this operation it will be even faster.

If you leave out a line from the listing, the checksum will cause a mismatch and the program stops. The missing line number is shown as an ERROR line, but no line is listed on the screen. That tells you there is a missing line number. List a few lines and see if it is misnumbered or if it is just missing.

Listing 1. DATA2OBJ (Data Lines to Object Code)

```
BJ 1 REM DATA2OBJ.LST by Frank Walters
GO 2 REM Uses Analog Magazine checksums o
   r MLEDIT program.
NR 10 DIM F$(18),B(16):LINE=990:FOR I=0 T
   O 16:B(I)=0:NEXT I
XL 20 GRAPHICS 0:POKE 710,34:POKE 709,42
YY 30 TRAP 40:RESTORE :READ A:GOTO 50
FI 40 ? :? "You must ENTER the LISTed DAT
   A lines":? "for the ML program, then ty
   pe RUN":TRAP 40000:END
CY 50 TRAP 50:? :? "Dest. dev:filename>
   ";
XE 60 INPUT #16;F$:CLOSE #1:OPEN #1,8,0,F
   $:POKE 752,1:? :? :RESTORE
ME 70 TRAP 150:LINE=LINE+10:CHKSUM=0
LH 80 FOR X=1 TO 16:READ BYTE:CHKSUM=CHKSU
   M+X*BYTE:IF CHKSUM>9999 THEN CHKSUM=CHKSU
   M-10000
OJ 90 B(X)=BYTE:NEXT X
ZX 100 CHKSUM=CHKSUM+LINE:IF CHKSUM>9999
   THEN  CHKSUM=CHKSUM-10000
MY 110 READ CHK:IF CHK<>CHKSUM THEN ? "CH
   ECKSUM ERROR ON  LINE ";LINE:GOTO 100
ED 120 ? "DATA LINE ";LINE;""
SL 130 FOR I-1 TO 16:PUT #1,B(I):NEXT I
RS 140 GOTO 70
WF 150 ? :? "Last full line of DATA: ";LI
   NE-10
OU 160 ? :? :? "File saved as ";F$
IJ 170 CLOSE #1:POKE 710,128:POKE 752,0;E
   ND
ZR 180 CLOSE #1:? :XIO 33,#1,0,0,F$:? F$;
   " DELETED":?  :LIST LINE:GOTO 170
```

Converting DATA Lines to Binary Files

DATA2OBJ, my "test" program, which converts DATA lines into a binary file, is shown in Listing 1 for you to type in. For your convenience, I have included letter checksums for each line if you want to use either *Antic's TYPO2* or *Analog's BASIC Editor* type-in utility programs. Do NOT type the checksum letters when typing the listing. The checksum letters do not work with *Compute's Proofreader* program.

After you type it into your BASIC editor, you must LIST *DATA2OBJ* to disk instead of using SAVE because you have to ENTER it to merge with DATA lines before you RUN the combined program. Use the program for only one listing at a time. Type NEW and re-ENTER it if you need to use it with a different set of DATA lines so the two different DATA listings do not conflict with each other.

DATA2OBJ will not handle long DATA listings because of memory limitations in BASIC. The DATA listing will be at least four times larger than the binary file, so listings that go above line 6300 may not merge with *DATA2OBJ*. It was intended for only short programs. All is not lost if you find yourself with a long magazine listing typed in DATA statements. You simply split the listing with a textfile splitter or *TextPRO*. Run the first file with *DATA2OBJ* and for subsequent files, change line 10 from LINE=990 to the first DATA line number, minus 10. In line 60, after the OPEN statement, change the 8 to a 9 (for append). Use the same filename at the prompt. It works. I tried it.

I will be including some DATA listings that use the *DATA2OBJ* checksum system in future articles. Some program listings are not easily printed if control char-

acters or ATASCII graphics are used. You may have noticed this problem in my *TextPRO Macro* series. Comprehending those complicated key presses to get hard to describe characters on the screen has probably been trying for you readers. I can include lines with control characters as a separate listing of DATA statements, which you can type and run with *DATA2OBJ* to re-create those particular difficult entries.

Listing 2. DIR (Data Lines to Merge with DATA2OBJ)

```
1000 DATA 80,79,75,69,56,50,44,50,58,
67,76,82,58,68,73,46,9576
1010 DATA 70,36,40,49,55,41,44,68,36,
40,56,41,58,68,36,61,7895
1020 DATA 34,68,49,58,42,46,42,34,58,
63,34,125,196,238,186,32,4829
1030 DATA 34,59,58,67,76,46,35,49,58,
79,46,35,49,44,52,44,7892
1040 DATA 48,44,34,75,58,34,58,71,69,
84,35,49,44,75,58,68,9060
1050 DATA 36,40,50,44,50,41,61,67,72,
82,36,40,75,41,58,67,8786
1060 DATA 76,46,35,49,155,63,34,125,3
4,59,58,79,46,35,49,44,8929
1070 DATA 54,44,48,44,68,36,58,70,46,
73,61,49,84,79,49,50,9190
1080 DATA 56,58,73,78,46,35,49,59,70,
36,58,63,70,36,59,34,8265
1090 DATA 32,32,34,59,58,78,46,73,58,
67,76,46,35,49,155,0,9234
```

Running Our Own Test

Let's demonstrate how *DATA2OBJ* works with an easy demonstration. Listing 2 provides the DATA lines for a short utility called *DIR*. You can use *DIR* to read any disk directory while in BASIC, without interfering with any BASIC program in memory. I find it helpful when writing programs if I want to check the directory for filename conflicts before saving the program listing. Letter checksums are not included in this listing because the checksum at the end of each line insures accuracy.

Type the DATA lines in Listing 2 into the BASIC editor and LIST them to disk. (LIST "D:DIR.LST") Next, merge DIR.LST with DATA2OBJ.LST. (ENTER DATA2OBJ.LST) You could also use *Analog's MLEDIT* to type the DATA lines directly, in which case you would also save the file as D:DIR. Any DATA errors will be caught by either *DATA2OBJ* or the *Analog MLEDIT* program. Name the destination file D:DIR.

To use *DIR* from BASIC you type E."D:DIR" in direct mode and then type any drive number (1-9) at the "Dn:" prompt. This utility is useful for single drive systems because it allows you to switch disks after you enter *DIR* from one disk. Swap disks before you press 1 for drive number and you can read the directory from a different disk. There is no way to trap any errors so type END after the ERROR 136 (End of File) printed below the FREE SECTORS line. The program does set the left margin at 2, so you may have to POKE 82,0 afterwards if you prefer the 40 column screen for your work. Actually, *DIR* could have been typed in with a text editor but it is a neat short demo for *DATA2OBJ* as well as a handy program.

Listing 3. (Object Code to Data Lines)

```
IC 1 REM OBJ2DATA.BAS by Frank Walters
GY 2 REM Uses Analog Magazine checksums f
   or MLEDIT program.
BA 10 DIM L$(256),FSOURCE$(18),FDEST$(18)
CX 20 GRAPHICS 0:POKE 710,128:LINE=990
EL 30 ? :? "Source dev:filename> ";
IE 40 INPUT #16;FSOURCE$
EG 50 ? :? "Dest.  dev:filename> ";
SS 60 INPUT #16;FDEST$
SH 70 TRAP 30:CLOSE #1:OPEN #1,4,0,FSOURC
   E$
JX 80 ? :TRAP 50:CLOSE #2:OPEN #2,8,0,FDE
   ST$
ZL 90 TRAP 160:LINE=LINE+10:CHKSUM=0:L$=S
   TR$(LINE):L$(LEN(L$)+1)="  DATA"
HY 100 FOR X=1 TO 16:GET #1,BYTE
RH 110 CHKSUM=CHKSUM+BYTE*X:IF CHKSUM>99
99 THEN CHKSUM=CHKSUM-10000
DE 120 L$(LEN(L$)+1)=STR$(BYTE):L$(LEN(L$
   )+1)=","
MR 130 NEXT X:CHKSUM=CHKSUM+LINE:IF CHKSU
   M>9999 THEN CHKSUM=CHKSUM-10000
UK 140 L$(LEN(L$)+1)=STR$(CHKSUM):? L$:?
    #2;L$
SO 150 GOTO 90
YV 160 TRAP 40000:CLOSE #1:IF X<2 THEN 20
   0
ZL 170 FOR I=X TO 16:L$(LEN(L$)+1)="0,":N
   EXT I
AN 180 CHKSUM=CHKSUM+LINE:IF CHKSUM>9999
   THEN CHKSUM=CHKSUM-10000
UU 190 L$(LEN(L$)+1)=STR$(CHKSUM):? L$:?
   #2;L$
OA 200 CLOSE #1:CLOSE #2:? :? "DONE":? :?
    "Listed file saved as ";FDEST$:END
```

Going Full Circle

Now, let's see if we can convert *DIR* back into the the same data lines we created it from. *OBJ2DATA* , as shown in Listing 3, allows you to create your own DATA lines from short binary programs. One caution when using this program is that it uses two open disk file channels so you may experience an ERROR 161 if you do not have sufficient file buffers reserved in your DOS configuration. Remember that double density disks require two file buffers for each open channel, since the sectors are 256 bytes instead of 128 as in single den-

sity. So you would need four file buffers available for *OBJ2DATA* if using double density disks. Read your DOS manual for configuring additional file buffers, if necessary.

After you type it in, you will probably want to SAVE OBJ2DATA instead of LISTing it to disk. It reads its source file from disk instead of DATA lines, so merging is not required.

Now RUN *OBJ2DATA* on *DIR*. Call the destination file D1:TEST.LST. When you compare DIR.LST and TEST.LST, you will quickly notice that they are identical. We've completed the loop.

Summing Up

So now you have three useful programs. *DATA2OBJ* (DATA Lines to Object Code) allows you to accurately "type in" binary files using DATA statements instead of wild looking control characters, which are hard to print in magazines anyway. I'll be using DATA lines compatible with *DATA2OBJ* in upcoming *TextPRO* macro discussion. *OBJ2DATA* (Object Code to Data Lines) allows you to reduce impossible–to–print Binary Files into easy–to–type Data Statements for inclusion in your own newsletters (or in this case *Current Notes*). Finally, *DIR* is a clever utility that allows you to look at a disk directory without leaving BASIC. See you next month!

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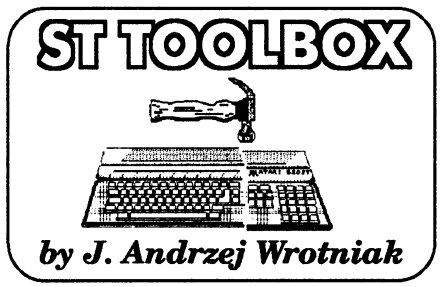


Sending Sand to Libya ... and Internet for the Rest of Us

by J. Andrzej Wrotniak

It has been a very busy Summer for yours humbly. Now that September is coming, life may slow down a bit (especially with the WAACE AtariFest not going to happen). This may be a good time to take care of some unfinished business.

Poland: Atari Lives, but a Distant Third

This June, I went to Poland–for the first time since settling down in the United States, more than nine years ago. The place is different in some sense, still the same in another. Still relatively poor, yet already quite civilized. Go and see for yourself.

And (yes, Virginia!), they still have Ataris there, although PC clones clearly dominate the market, with Amiga being a very distant second. At least in the first bigger newsstand I was able to find, three ST-dedicated magazines (monthly or bimonthly), and Falcons were advertised as being in stock–mind you, in early June!

The computer hardware market seems to be booming, although software piracy seems to be a really widespread problem. It is not hard to see why even those who understand the wrongness of that are tempted: many of the widely used PC-DOS programs sell for more than a month's pay!

A Double-Clicker Back in Business

Double Click Software, a company which went under some time ago, has been revived this year as *Trace Technologies* under the leadership of one of the original Double Clickers, Keith Gerdes.

Currently, they are offering new versions of some of the ex-DC utility programs, including *Data Diet* (hard disk data compression) and *Squish*, a handy little program shrinking your executables (.prg, .app and .acc) so that they expand automatically when executed, in a totally painless (user-transparent) manner. Another program, *DC Sea* (producing self-extracting archives) has been re-released as shareware.

For a number of reasons (including speed, efficiency and reliability) I prefer *DC Squish* to any of the freeware offerings of the same kind and I'm happy to see an upgrade being offered: $21 for the owners of the original version of some of the DC products. The only limitation (and a painful one) is that you cannot distribute squished programs. Well...

Now I'm waiting for Keith to upgrade another DC product, *DC DesKey*, which I use almost all the time.

DC Deskey is a desktop accessory allowing you to remap the keyboard in any way you find convenient and to assign keystrokes to menu entries of any application. The program is smart and remembers the configuration for any application you run, so that once you defined your mapping, the whole thing takes care of itself without the user having to do anything–ever.

This is one of my favorite utilities, allowing me to use the same keystrokes in all text editors and word processors I use. It has, however, one ugly bug, crashing whenever I run any terminal: *Interlink*, *Stalker* and *Uniterm* in this number. As my life without the *DesKey* would be even more pathetic than it already is, I have to reboot without it every time I want to go on-line, and this is a pain.

Even as I am writing this, *DC DesKey* saves my day: my seven year old keyboard just stopped reacting to the Return key (unless you really press it, rub it, and do some other stupid things). Yeah, I am planning to disassemble and clean it up (it helped three years ago), but not today, not this week, not this year–too busy. What I did instead, was to remap the Help key into Return for my most frequently used programs (takes about ten seconds to do it) and I'm back in business, sort of.

Last time I was talking to the DC people, two years ago, they were planning a new release of the *DesKey*, with some significant enhancements (e.g., assigning multiple keystrokes to a single one, cool!). I can only hope Keith has this on his to-do list, as I consider the *DC DesKey* as one of the lesser-known ST utilities deserving a wider recognition.

Trace Technologies can be reached on GEnie as K.GERDES or by snail-mail at P.O. Box 711403, Houston, TX 77271-1403. Welcome back, Keith, and good luck!

A Window to the World

After lots of hesitation, GEnie opened itself to the outer world, allowing e-mail exchange with Internet. If you are on GEnie, and your address is, say, JOE.WATERS. then your Internet address will be "joe.waters@genie.geis.com." (CompuServe has had this capability for some years now.)

Mind it, this is **not** a full Internet access–it does not offer remote login (telnet) or FTP (File Transfer Protocol), just electronic mail.

Now, here comes **Delphi**, struggling to gain more popularity and offering some real bargains in the process. For an extra $3 a month, they offer you **full** Internet access; combined with their $3 for 3 hours or $20 for 20 hours a month offer. This sounds too good to be true.

Those of us who use Internet-bound machines at school or at work will now be able to log in via Delphi from almost any place within the United States without paying a long distance fee. Also, with zillions of free program and data files available on thousands of computers around the world (via the so-called anonymous FTP), this opens a whole new universe for those who did not have Internet access before.

By the way, the best (by far!) introductory book about Internet I was able to find was *The Whole Internet* by Ed Krol. Some of the past issues of *Current Notes* also dealt with the subject in the *Junkyard Pussycat* column as well as in Rick Reaser's 8-bit Tidbits columns.

Is Falcon Here to Save Us?

Finally, just nine months after the promised Christmas blitzkrieg, almost every dealer and his mother have Falcons in stock, but the world does not seem to notice this advent of a new era.

Why? The Falcon is, indeed, a technological feat, so why is everybody not lining up to get one? I suspect a number of reasons.

- Advertising is the same as always: nonexistent outside of the music market. Where are those tens of millions of households eagerly awaiting the arrival of a real multimedia machine (to quote Atari Corporation from a year ago); why are all those millions being ignored?
- Many of the hard-core ST users (including most of those I know) assumed a wait-and-see position. Surprised?
- What does the Falcon offer to a middle-of-the-road home user, who wants to use a word processor, maybe a simple database, and a few other productivity programs, and for whom digital sound capabilities are less important? A cheap Mac, or a cheap PC clone, will do the same–and for less money, even though Falcon really *is* a better machine.
- Yes, prices. The ST, at its heyday, was not only superior to, but also cheaper than other machines. Power Without Price, indeed. Now, a person shopping for an inexpensive computer will not focus on the Falcon, even knowing about its existence.

The bottom line? One may fear that the Falcon may (and probably will—at least so I hope) stay on the market, but it will be used mostly by musicians and, maybe, digital sound/image processing enthusiasts. Limited to this market niche, without a non-specialized user base wide enough, it will then fail to attract developers of general-use software. This will push it even further into its corner of the market, in a classic positive feedback loop. The dying STs, withdrawn from circulation, will be replaced with PCs or Macs.

Thus, we may become users of an orphan computer even without the ST/Falcon line going belly up. Nothing (well, almost nothing, for there is a life outside the Atari world!) would cheer me up as much as being wrong in this grim scenario.

What about the Jaguar game console? Well, at first it has to show up and to make a splash on the market. Remember the Lynx, so much superior to its Nintendo competition? Just recently, I've asked six kids (sorry for the small sample, but that's all I could find): all of them knew what a Game Boy is, and none (!) ever heard about the Lynx. This reminds me an old joke (maybe not quite a joke?) about Libya: as soon as the government adopted the new and improved economic system, they had to start importing sand from abroad. Not funny.

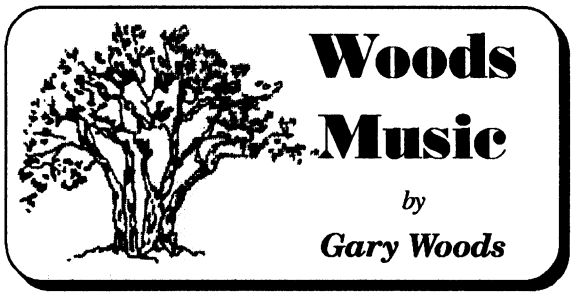
Still, if the competition just sits there without coming out with a comparable product (this is, as we know, what the Japanese do most of the time), the Jaguar will be a success. But this only means that the Atari Corporation will start bringing profit to its owners. They may be too busy counting all this money to pay any attention to some strange people who insist on using some strange computers bought from a strange company who really stays in this strange business out of a habit.

IdeaList Is Back, Improved

The new *IdeaList 3.21* (an excellent text printout utility, shareware from Germany) has been available for some months now. It is even better than the version I reviewed some time ago.

By the way, if you initially experience problems with the *Idealist* and your printer (as did Mr. B.E.Brown, see *Letters* from the last issue), just try, gently, to modify the configuration file; one of these is heavily commented in English. All it took me to use the program with my Panasonic KX-P1124, was to change the number of lines per page–they use a slightly different paper size in Europe.

If you are afraid to do it (and there is nothing to be afraid of!), and if you use the KX-P1124 or LaserJet III, drop me a line, and I'll be glad to e-mail you the files, or to pass them to our Publisher, to be included on the *CN Library* disk together with the newest version of the program.



Music Manuscriptor

Lately, I've had some inquries about music manuscript from those who need printed representations of their music for other musicians to play. In my opinion, on the Atari, the best music printing/sequencing software is *Notator*. The print quality is good and the editability is excellent. I think *Cubase* is a better sequencer, but if what you're after is the printing of your scores, then *Notator* deserves a look.

For pure music printing without the sequencer, I use Doctor T's, *Copyist* program. I like this program because it is very simple. Most music printer programs have an irritating habit of placing symbols and notes where they want to place them. With the *Copyist*, everything is placed manually, so you decide where to place it. The printout is first rate, particularly with the postscript printer driver installed, and I've become very fast using it.

The virtues of *Notator* have been chronicled previously in these pages by another scribe, and the *Copyist* is so simple I'm not sure I could fill three pages with its features. But, there is a product of which I just became aware, and it is starting to become popular with those who write motion picture music. It is published by a company out of Utah called Erato Software and recently I had a conversation (see below) with John Hawkins, one of the programmers for their *Music Manuscriptor*™ program, which runs on the PC family of computers.

John demonstrated the system at David Newman's studio while David was working on the music for "Coneheads." David's setup consists of a MIDI keyboard that is slightly higher than a regular position. Under the keyboard, a computer keyboard, which is used for text and symbol input, can be pulled out. Above the MIDI keyboard are two monitors. The first, larger monitor, is used to display the music being input. It shows approximately 2.5 to 3 pages of orchestral score with the entire orchestra represented on the screen. The second monitor is used to display report windows, statuses, settings, and help-screen information. To the right of the keyboard is a digitizer tablet, which has an overlay of all the commands, many identified by music symbols needed by the program. John says that David feels he is two to three times faster with this system than he was with paper and pencil, and that includes doing his own orchestration.

GW *What are the hardware requirements?*
JH An IBM Compatible with a 286 through 486 processor. Also, we require a math coprocessor for 286 and 386 machines. Four to eight megabytes of RAM are recommended. You can use a standard VGA monitor, but we support Super VGA. We do require a MIDI interface, and the digitizer tablet is a good idea.

GW *The digitizer tablet is not required?*
JH It is not required per se; that is, you can do all of the command operations from the keyboard, and use a mouse for graphics pointing. But, in learning the system, it's a good idea to have the tablet there. All of the commands are right there when you want to select them, and they're labeled right on the tablet. Rather than having to learn that pressing the ALT and CONTROL key then pressing the Period gives you a Staccato Mark, it's a lot simpler to use the tablet.

GW *How big a hard drive is required?*
JH A standard one, approximately 80 megabytes would be sufficient. The system itself requires about 5 megs of space. The file size the program creates is very economical. We have done tests entering the same piece of music with *Finale* for example, and we generate about a third of the file size. I should point out that composition length is limited only by the amount of internal memory assigned to store it.

GW *How much hard disk space would be taken up doing a ten-page orchestral score with 30 staves on a page?*
JH Around 50 kilobytes.

GW *When you extract out the parts, how much space would be required?*
JH Each part takes about eight kilobytes.

GW *What kind of cost are we talking about for monitors?*
JH The low-end VGA monitor is running $200-$300 these days. At the high end of the VGA monitors, a 1280 X 1024 pixel unit with the controller card is running about $1,200. We also support the dual monitor configuration.

GW *Do you think the dual monitors really work best for this software?*

JH If you're going to be doing orchestration for a medium to large size orchestra, then you need to see as much music at one time as possible.

GW *Then you should be displaying the other utilitarian data on some other screen?*
JH The second monitor could display all of your help menus, the reports, the status of the file, etc. With the Cor-

nerstone Technology monitor that David has, he is seeing about three pages of orchestral score. This gives him a very good sense of what's happening musically.

GW *What's the cost for that monitor?*
JH $2,200.

GW *How is the input of information accomplished?*
JH In a number of ways. First of all, you use the MIDI keyboard to put in the pitch information. Then, you use the digitizer tablet as the primary method of putting in the note values and articulation marks. The command set for the tablet includes over 200 commands, such as all the clefs, note values, articulation marks, etc.

GW *Tell me more about the digitizer tablet?*
JH The tablet is a very common device used in engineering applications. It is a standard tablet, and we supply the overlay, which has the musical symbols. So instead of pulling down an onscreen menu that says clefs, or another that says articulations, and a third menu that allows you to select the staccato mark, you go to the command block on the tablet and just select the staccato mark. It's faster, and it's easier to learn because you don't have to memorize a whole command structure. You're also not having to learn some kind of finger twisting keyboard controls.

GW *So everything can be entered on the tablet except for the pitches?*
JH Everything comes off the tablet except for the pitches and text. This way you don't have to keep going back and forth to the computer keyboard. Everything is entered via the tablet.

GW *How is the tablet layed out?*
JH There are two tablet regions, one for commands, and the other a section called the drawing area. When the tablet's pointing device is in this area, it gives you a graphics pointer for placing marks and text, drawing figures, moving and editing elements.

GW *How does the* Music Manuscriptor *handle repeated sections?*
JH Originally we thought about using the term Motif, and realized very quickly that it was too big of a term. We settled on the term Pattern. You are able to take a particular phrase and save it into Pattern Storage on the hard disk. It is numbered automatically, or you can name it. Then, when you call up the list command, it displays all the Patterns which you have saved.

GW *How many Patterns are possible?*
JH Up to 1,000. They can be either single staff, or multiple staff patterns. So, if you're taking a section of the orchestra, say Flute 1 and 2, and duplicating it in Violin 1 and 2, you just copy it from place to place. Also, you have the split and join commands, which allow you to take a particular musical line, split it at a selected point, which creates a new system, add information onto the original system, and then rejoin it.

GW *What about combining several pieces of music?*
JH That happens in the score facility area. It allows you to add or delete staves on an existing score, it also allows you to name each of the staves. Symbols, like brackets and braces, can also be added to the system here, and this section allows you to do part extraction. Also, you can append one composition onto the end of another. One of the other operations that occurs in that same context is merging. For example, if you've written a flute line, and you'd really like to add an oboe line that you've already written in another score, then you can merge that line into the present score.

GW *Let's say I want to place bars 23-48 into the center of another piece of music. Is that a relatively simple action?*
JH Yes, you can do it very easily with the Pattern facility.

GW *What size is the printout?*
JH We support all the standard laser printers. This would mean for most users you would have either an 8.5x11 or 8.5x14 printout. Recently, we've developed an 11x17. We support the Hewlett Packard Laserjet II's and III's, but you usually have to beef up the memory a bit.

GW *How much memory would be required on the printer?*
JH We recommend just two megabytes. Also, we do not require Postscript. One of the newest printers one of our clients has is the Hewlett Packard 4L, which sells for about $700, and, because it has extra memory built into it, we didn't have to make any modifications.

GW *How fast is a page printed?*
JH For a typical page of score with an older Hewlett Packard Laserjet II, which does not have a sophisticated communication buffer, you're talking about 40 seconds. With a Laserjet 4, you're talking about 8-10 seconds. Now, if you're using a high-speed printer interface, like the JLaser Card, then we're talking about 3 seconds for a page.

GW *Are you able to print on 80-pound paper?*
JH It depends on the quality of the printer. Some printers are able to use the heavier paper, but it sometimes decreases the life of the mechanism.

GW *Do players seem to need larger musical font sizes?*
JH Absolutely. This is where we worked with JoAnn Kane's group to make sure that the font size is extremely readable from the page. This included such things as having oversized numerals for time signatures that literally jump out at you.

GW *Do you have to enlarge the conductor score pages?*
JH That's what the practice has been. We print out the scores in a very small font, and end up getting 30-35 staves on a legal size piece of paper. Then we blow it up to the larger size for the conductor. As soon as we get the 11x17 printer, it won't be a problem. At that time, we'll end up

getting 2-2.5 pages of what we would now consider a conventional score.

GW *What about Jazz, Percussion, and Avant Garde musical symbols?*
JH A lot of those are supported. For instance, in chord symbols, we support all of the jazz symbols such as diminished, half diminished, augmented. We've got triangles, circles, and circles with slashes. Also things like Bartok's snap pizzicato.

GW *What about symbols like streamers and punches?*
JH Streamers and punches are put in as alternate bar types. Then we have a lot of annotative text, which relates to this particular area. We have a lexicon of labels, so that most of the musical text has already been entered for you. It's just a matter of placing it where you need it.

GW *What kind of Edit Modes do you have?*
JH We have three: Overstrike, Insert, and Replace. The Replace Mode is used in a number of different ways. For example, in editing rhythmic elements, Replace Mode preserves the rhythmic integrity of a measure. So if you have a pair of quarter notes and you add a dot to the 1st quarter note, in Replace Mode that subtracts an eighth note value from the second quarter note and changes it to an eighth note so that you still have the same number of beats in the measure.

GW *How do you handle Divisi Parts?*
JH We are able to separate parts, or combine them, or work entirely within a single staff. There is an indicator, which we call the music cursor. If the indicator has a single line through it, then you're working on the 1st divisi voice. If it has two lines, then you're working on the 2nd, and so on. We have the capacity of having four divisi voices on a single staff.

GW *What about for people who want to expand out either a two or four line sketch to a full orchestration?*
JH A lot of our users do their orchestral composition in exactly that style using the Pattern/Save and Load facility.

GW *How do the copyist and composer interface?*
JH The way that the film composers are working is that they're able to take their cue, send it to the copyist over a modem, where the copyist does several things. First of all, he prepares the concert score for the conductor, then he takes that original composition and does what is called part extraction. This entails taking each individual part and creating a separate composition from it. The first step is to compress rests into multi-measure rests. The part is then cleaned up and layed out to make sure it's extremely readable by having three, four, or five measures per staff, and also that the page turns are placed properly. Finally, they make sure the part is correctly transposed. This type of extraction and preparation takes about 5-10 minutes per part.

GW *What about MIDI implementation?*
JH We've taken a very cautious approach to MIDI implementation. For the first version, we used it just for input, picking up pitches and chords, and for editing. The next stage in MIDI implementation was playback. In the early days, the playback was very crude, typically using one or two channels, with not much interpretation. Today, we are able to support 32 channels, and we interpret literally everything that can be interpreted. All of the articulation marks, including staccato, tenuto, and combinations of these markings.

GW *What about MIDI Volume?*
JH Not only MIDI Volume, but also MIDI Velocity changes. Slurring and phrasing marks are interpreted as well. Tempos are interpreted, which includes regular tempo marks, as well as ritardando, and accelerando. We can also embed MIDI program changes into a label. So if you have, for instance, a Pizzicato label attached to a string line, we can embed a program change to switch it over to the pizzicato sample.

GW *How about MIDI Files?*
JH We're mostly complete with this feature, but we're taking our time with it and making sure it's done right. Like, for instance, when you have triplets, instead of having them appear as double dotted 16th's, that they show up as 8th note triplets. I expect that version 3 will support real-time input.

GW *So the note values would be notated as well as the pitches?*
JH That's right, the rhythmic value, the rhythmic duration along with the pitches. We'll be using two types of methods for input. First of all, a metronome click requiring very mechanical playing. Secondly, a foot switch for counting out the beat with your foot to allow for rubato playing.

GW *What about synchronization?*
JH We don't have synchronization yet, but we are planning on having full SMPTE synch. One of the nice things we can do is play back the cue for the director, so that they can have a little bit better sense of what this thing is really going to sound like.

GW *How much would it cost to put together a system like this?*
JH The Music Manuscriptor software is $700, the Digitizer Tablet is $350, a MIDI interface is about $90, and laser printers range from $600 to $4,000. The computer system itself, depending on which CPU you got and how big a monitor and hard drive, would be anywhere from $1,500 to $4,000.

For more information on the Music Manuscriptor write to: Erato Software Corporation, P.O. Box 6278, Salt Lake City, Utah 84152-6278. Phone: 801 328-0500.

If you have any suggestions or questions feel free to contact me: Gary Woods, 6428 Valmont St., Tujunga, CA 91042. Phone: 818-353-7418; FAX: 818-352-6559.

BUTTONZBASIC
A Helpful Utility Shell for GFA Basic
Review by Jim Fouch

Anyone familiar with programming in *GFA Basic* will know how unfriendly and limited the included **MENU** program can be. This menu program is meant to be a link from the interpreter (where you enter and test your program) and compiler (where you make the code into an executable program). MENU is fine for the beginner or someone who is just using *GFA Basic* from time to time. However, for serious programming, you may need something more powerful and flexible.

This is where *BUTTONZBASIC* comes in. It is a replacement for the above MENU program supplied with *GFA Basic*. It allows you to link all aspects of programming together into one program, also known as a shell.

Installation. Installation of *BUTTONZBASIC* is very easy and straight forward. The program works from floppy or hard drives. It is not copy-protected. An install program supplied on the disk will automatically copy all needed files to a partition on the hard drive of your choice. It will take approximately 220K of disk space. Note: The program is supplied on a double-sided disk, even though the files would fit on a single-sided disk. This may be a problem for people who only have access to a single-sided drive.

Program Features. *BUTTONZBASIC* uses a unique 3-D button interface similar to the *Zest* or *NEXT* interface. When you make a selection, the button appears to depress into the screen. The screens look nice at first. However, sometimes it may be difficult to read at a glance. Particularly in the compiler settings screen, it is hard to tell if an item is selected or deselected.

The main purpose of this program is to link other programs together. It does a fine job of this. It is easy to set-up. Simply tell the program where your files/programs are. These include: GFA Basic Interpreter, Compiler, Linker, RSC (Resource Construction Set), and Text editor. Once this is done, you can save these setting for future sessions.

Included in the program are a number of disk utilities, which allow you to maintain your files/programs without leaving the shell. Several functions are provided: Copy / Move / Delete / Rename Files, Create Folders, and Format a Disk. Accessories can be accessed from within the shell.

Program Shortfalls. While using *BUTTONZBASIC*, I found a few shortfalls. It was tested on my TT/030 with a Super VGA monitor using ST medium and high resolutions. It would not run in ST low or any TT resolutions. I was also unable to get it to run in, or use, TT RAM. The manual states "for all Atari ST/STe/TT computer systems."

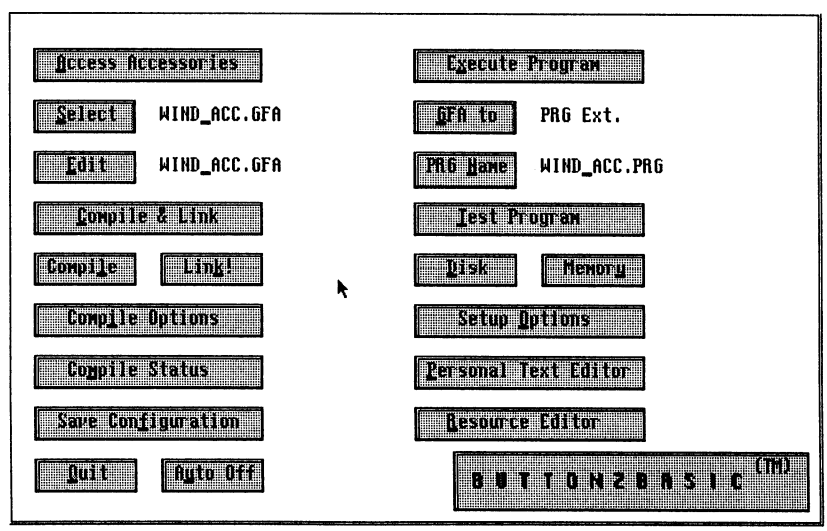
The manual is very brief, seven pages total. However, it does cover all functions. There is just not a lot of time spent on any one function.

Although this review is not intended to be a comparison, allow me to offer some comparisons between *BUTTONZBASIC* and one other popular shell for *GFA Basic*, *G-SHELL* by GFA Software Technologies Inc. *BUTTONZBASIC* has no online help feature, such as the one in *G-Shell*. *G-Shell* supports the TT resolutions and TT RAM.

When compiling and linking a program with *G-Shell*, you are informed in real time of what is going on; for example, the current line number. *BUTTONZBASIC* does not do this. However, you can see the results after the compile and link are finished.

Conclusion. I found *BUTTONZBASIC* lacking in some areas, but very nice in others. Overall, the program is very solid and well laid-out. The price of $44.95 seems a bit high compared to *G-Shell* at $39.95. It does everything the manual says it should. It runs circles around the Menu program supplied by GFA. If you're not using something better than the GFA MENU program, you are wasting valuable time.

[BUTTONZBASIC by MajicSoft, Inc., 348 Meredith Square, Columbia, SC 29223. Phone (803)788-8177]

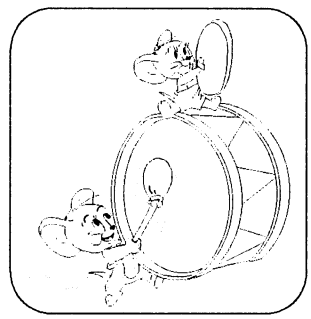


ROBO-BOP

Painless Percussion Programming
by Ed Olmos

For many who create music using MIDI as a compositional tool, creating drum rhythm tracks with a hardware or software sequencer can sometimes be a tedious, time consuming chore. OK, the real story? The musicians I know who are into MIDI (this includes myself) aren't drummers, so creating a half decent drum track that doesn't sound like something from Lounge Hell is a lot of work. There is an inexpensive program I've found to be a great help...

ROBO-BOP, Version 1.96 by Frank Vuotto of F10 Software, is an editing tool that allows you to create drum rhythm patterns. These are played as MIDI (Music Instrument Digital Interface) notes through MIDI sound sources such as drum machines or synthesizers that have drum sounds available. In fact, *ROBO BOP* was written to resemble the easy to understand graphic (LCD) interface of the Roland TR-707 drum machine.



Easy Setup. *ROBO-BOP* runs in high or medium screen resolution. It is not copy-protected and runs from the hard drive of a 2 Meg, TOS 2.06, 1040STe with a Roland MT-32 sound (synth) module connected to the computer MIDI ports. The program also runs on a stock, TOS 1.0, 520ST system using the same sound module.

Most multi-timbre synths by various manufacturers have the percussion instruments on MIDI channel 10. *ROBO-BOP* is already set up to access channel 10 through the default configuration file that loads on bootup. MIDI channels are selectable from 1-16.

Building Blocks and Boxes. The screen center (figure 1) contains a grid of blocks with an instrument named for each block row. You paste notes into the blocks with the mouse. An empty pattern is selected from the numbered boxes near screen bottom. Up to 32 created patterns can be used by the program for playback in any order chosen.

Notes can be entered, in or out of the PLAY function, on any grid block and the boxes that show instrument information, as well as the highlighted instrument name, will change accordingly. **Some Editable Features**

For each of the 13 possible instruments, the name, MIDI note number, volume, and MIDI channel can be edited and then saved in its own custom configuration file. MIDI note and volume values are adjustable from 1-127.

The MIDI note and volume values for individual programmed notes are also adjustable. A note block will show a different Atari fill pattern when its values have been changed (like the snare and both congas in figure 1).

The 11 boxes with the various Atari fill patterns, on the right side of the screen, are volume presets that are adjustable for each instrument. The only bug I found in *ROBO-BOP* was, in high-res mode only, volume preset box #1 did not respond when clicking on the different volume presets.

Into the Functions. In the high-res mode only, icons (shown) can be used to represent functions. Dialog boxes appear for most functions selected and there is a help menu to show the keyboard controls.

When PLAY (play symbol icon) is selected from the function boxes on the left side of the screen, a cursor block scrolls above the measure numbers from left to right. The scrolling cursor (shown frozen in time on the 4th beat of the first bar) shows at what point in the measure a note is being triggered and gives a visual representation of the tempo.

STOP (pause symbol icon) halts sequence or pattern playing. C/C/P (knife icon) will Cut/Copy/Paste notes within a pattern. EDIT (bandaid icon) has MIX for balancing instrument volume levels and DELAY for shifting instrument time within a pattern(s). CLONE (double fish icon) copies created patterns to other patterns.

The Random Composer. RNDOM (dice icon) (figure 2) generates random note hits and volume values for one or all instruments. The percentage of randomization is adjustable. This is an interesting function to play around with. Since this program plays MIDI notes, you're not limited to only using percussion sounds. One of the sample configuration files included on the *ROBO-BOP* disk was set up as half drum kit and half C scale notes. In the RNDOM dialog box, I adjusted the note hit probability to 10% and randomized some of the instruments and C scale notes in this configuration.

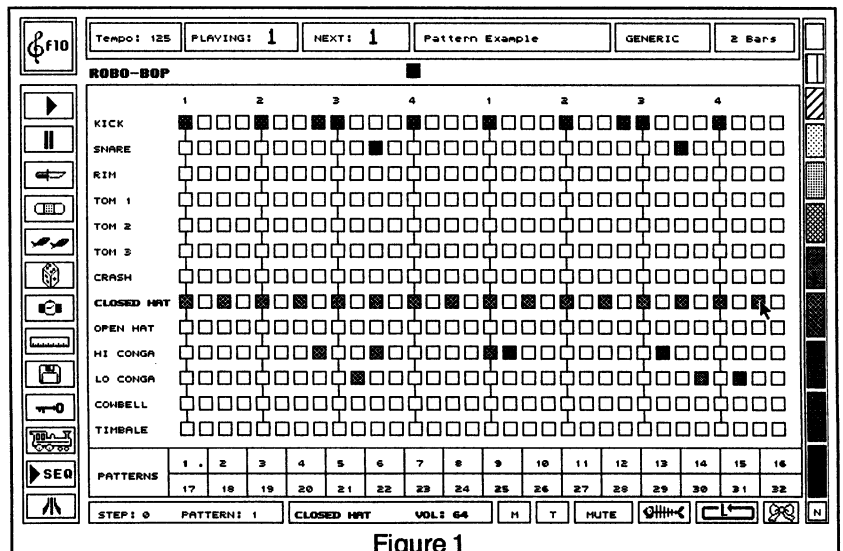


Figure 1

The pattern created sounded similar to what you would hear from an algorithmic (computer generated music) composer. I've come to find out that this is a popular usage with those already acquainted with *ROBO-BOP*.

T-DIV (wristwatch icon) switches between triplet and 16th note feels. LENGTH (ruler icon) adjusts the bar length from 3/8 to 2 bars and affects how far the scrolling cursor will travel across the screen.

FILE (disk icon) has LOAD/SAVE of *ROBO BOP*'s own (.PAT) file type, LOAD/SAVE a single pattern (.SIN) file, DUMP sequence or pattern files to drum machine/hardware sequencers, and SAVE sequence as a Standard MIDI File (.MID). The Standard MIDI File is a popular file format that can be imported or exported to most MIDI hardware or software. *ROBO-BOP* can save a sequence as a "Format 0" Standard MIDI File, which means that all the instruments and their MIDI information will be combined and show up as one track when imported to MIDI hardware/software. It's a little more work to have the instruments on separate tracks, as you would have to save a sequence file for each instrument part in a pattern and then import the files, one at a time, to separate tracks in your sequencer.

The SETUP (key icon) function is for editing, loading, or saving configuration.

Power Tools. PG-SEQ (train icon) (figure 3) is a sequencer in which the patterns can be linked together, in any order, as a series of up to 250 steps. The sequence created can then be played back with the PL-SEQ function or saved as a Standard MIDI File.

These particular features are powerful song writing tools. Chaining a few created patterns together in the PQ-SEQ dialog box was as quick as clicking the mouse. I saved the sequence for import to my software sequencer and recorded other musical instrument tracks using the drum track as the click (metronome) track.

Keeping You Informed. At the top of the screen the boxes show the tempo, the current pattern that's playing, the next one that's going to play, the pattern's name (which is editable), configuration file name, and bar length.

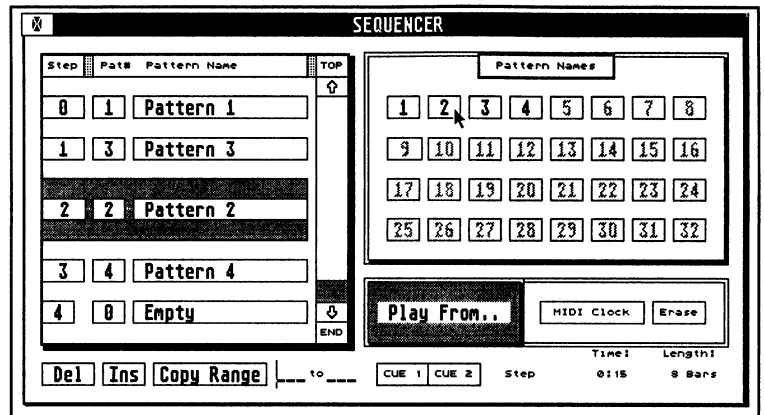


Figure 3

The tempo is adjustable from 31-250 in varying increments. According to the program's author, *"ROBO-BOP* has a fairly coarse tempo resolution due to the limitations in GFA Basic interrupt programming (1/50 of a second)." But that's not really any problem; tempo can be precisely adjusted in most hardware or software that a sequence/pattern file is transferred to.

Miscellaneous Manipulations. At the screen bottom are boxes that show what step in a sequence is being played and what the pattern is; which instrument is highlighted and its current volume preset; an on or off (M)etronome; a drum machine style (T)ap writing function for entering notes in realtime; MUTE to silence an instrument during playback; ERASE (fish bones icon) pattern; LOOP (circular icon) for endless playback (stoppable, of course!) of two patterns chosen from TIE (bow icon); and (N)ame for a full screen editor for all pattern names.

Last, but not least, is the MIDI Record function, in which you can record notes into the grid blocks in step time or real time using your keyboard or other MIDI controller.

ROBO-BOP comes as a single disk and 10-page booklet. The instructions are easy to understand, regardless of MIDI experience. The booklet also has some handy tips for manipulating the various program features.

Conclusion. It appears that no other stand-alone drum pattern editors exist for the Atari platform. I'm glad this one does, because using *ROBO-BOP* is a fast and easy way to create a drum track. For my own purposes, it's a great program to use in conjunction with my software sequencer. *ROBO-BOP* is well worth the purchase price for you to explore your own creative uses for it.

If you use a modem, there is a Demo/Shareware version of *ROBO-BOP* available for downloading from most major online services. Some features are disabled in the program, but it is usable enough to have some fun with.

[*ROBO-BOP*, F10 Software, Box 2201, Taos, New Mexico 87851. List Price $25.00.]

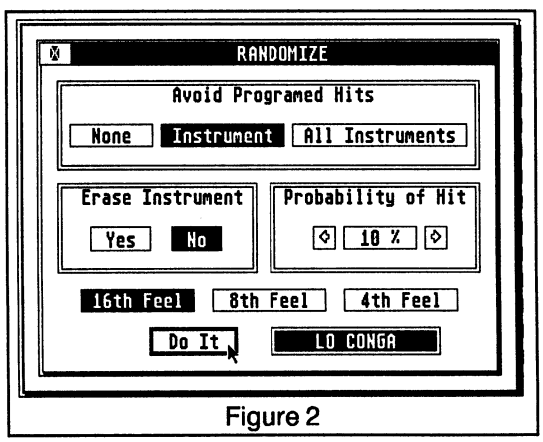


Figure 2

The Light at the End of the Phone Line

Online Forums as User Groups

I like to think of the online services as great big user groups. There are pluses and minuses to this concept, and it soon becomes apparent that they are no such thing. They are an entity unto themselves, and, as such, have unique qualities. Being aware of some of these qualities will make your online time more productive, enjoyable and cost-effective.

On the plus side, there is the "user group" mentality in the online forums. Let's say you crashed your hard drive big time. If you can get your machine up and limping again and log on to the Atari Productivity forum on CompuServe, you might post a message to the other forum members explaining the situation. The results might save most of the data on your drive!

Psst! Wanna Buy a Duck?

The forums are also a great place to find bargains! It's not unusual to find a used ST, TT, scanner, hard drive, software and tons of other stuff online. Most of it is in good to excellent condition and, in years of observation, we have only heard of one or two instances where the items purchased were not up to snuff.

The "exchange" aspect of online purchases is best accomplished by the UPS COD CASH method. This way, if you're the seller you're guaranteed that you'll get your money. If you're the buyer, you can reasonably be assured that you'll get the goods. Of course, there is no guarantee that the goods will be in perfect condition, but again, in years of observing *and purchasing* online, we've only seen a very small percentage of bad deals. And if you *do* end up with a lemon that the seller won't take back, you can always post a message warning others of the scoundrel. It should be noted that in the exchanges gone sour that we've observed, all have been amicably resolved.

Did 'ya Hear the One About the Traveling Salesman...

Another nice aspect of the user group mentality is the exchange of ideas with other members. Frequently, you can pick up extremely helpful hints on the specific machines and software you are using. You can also communicate directly with the manufacturers and authors of many of the programs you are using. We've even seen instances where authors will incorporate user suggestions into upgrades!

Then there is the aspect of news and updates. The online community, and the Atari users in particular, need to keep in touch with the activity and developments in "the industry." The message areas are usually filled with tidbits related to conventions, new software and hardware, information about people in the industry, publications, and even information about other services.

As we discussed here before, the software libraries are filled with programs, fonts, accessories, program specific files, MIDI files, patches, and utilities. It goes without saying that these are one of the big pluses of online computing.

User Groups/Abuser Groups

Of course, there can be no joy without sorrow; no pleasure without pain; no life without death; and no positive experience without negative experience. This holds true online as well, but forewarned is forearmed, and knowing the pitfalls can save you a lot of aggravation later.

The greatest problem we have seen online is miscommunication. A large percentage of the time, this is due to the fact that we cannot see and hear *how* what is being said *is* being said. Here's a small hypothetical example: Let's say we are comparing our modems in a face-to-face discussion. If you say that your modem is faster and more accurate than mine, I might jokingly say, "You dog! Well I can *think* faster than you can," and add a chuckle at the end with a big smile. There is no doubt that it was meant in a light-hearted way and we both laugh. Even if I really *meant* it, my words would fade before the next breeze and we'd go on to discuss something else, have a few more beers and carry on without a pause.

But *online*, the very same discussion (with the very same intent) might turn quite sour. I not only *called* you a dog, but I *published* it! *Everyone* saw it!! A public insult!!! You, in turn, begin chastising me and cursing *my* offspring (present and future). My only defense is to explain the remark, but why should I explain myself to an ogre who has just cursed *my* family for all time? This may sound far fetched, but it is not at all. Every week there is a new online skirmish similar to this. It cannot be stressed enough that what is left in a message is to be re-read and re-evaluated for its positive aspects *before* you return

the alleged insult with one of your own. Silence may be the best answer!

I Have All I Can Stand 'Cause I Can't Stand No More

Then there is the *intentional* insult. There are certainly "good" and "bad" people in the world and no less true online. But just like real life, the best response to a stupid comment is no comment. Let the remark just sit there. If it's addressed to you, you can delete it. If it's not addressed to you, you can request that a SYSOP delete it. In the Atari forums, I have no doubt that it would be deleted if it was offensive or obscene. But the comment says more about the mind of the writer than the subject.

In a court of law, for the most part, lawyers, defendants, witnesses and judges speak with respect toward each other. Why? Because whether we want to believe it or not, the jury is deciding *character* as well as truth. If, for example, one vendor consistently says negative things about another, continually misspells the competitor's name (or the name of a publication they don't particularly like) then doesn't that say more about the person making the comment than the person they are insulting? These "little minded" insults need be ignored as well. Let them speak for themselves.

If you *must* respond to such an insult, let the response be something to the effect: "Sir/Madam, your comment speaks for itself." Take the high road and let the mud be something your wheels glide over, not something you let hit you in the face. Besides, if it's a competitor, whom do you think the casual reader would want to do business with? The nasty business person or the polite, considerate *professional*? After-sale support is perhaps more important than extra features and certainly more important than bloated claims. When we call tech support, we want a friendly greeting and considerate help. In a way, online "negativism" does more to hurt the business of the person slinging the insults than it does to actually de-fame the target. It might even sway some potential customers to the target's camp!

Light at the End of the Phone Line

Overall, our online experiences have been quite positive. If a little disagreement occurs, it is usually easily resolved. Occasionally, it pays off to actually call an online acquaintance on a regular telephone. In speaking to each other, differences between reasonable people can be smoothed over and even serve to create lasting friendships. Let's all keep in mind that we are working toward the same ends. Increased productivity, keeping our machines from becoming obsolete, and staying up to date with news of our interests. If we can have a good time while doing all that, we're way ahead of the game.

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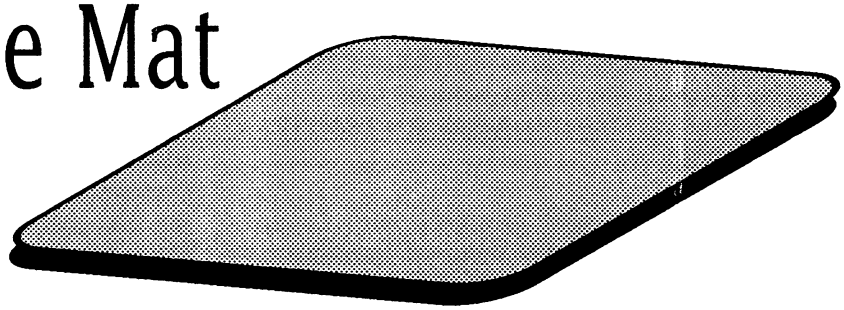

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Retouche Black and White Professional

Photo-Manipulation Becomes Affordable on the Atari

Running Out of Ram by David Barkin — Part One

For over a year I've been waiting to write these articles. I purchased *Retouche Black & White Professional* for $1,000 and, while I can't say I regretted the purchase, at the same time, I felt this price was just too high. The program was, and is, great, but $1.000 for a photo manipulation program, which works only in gray, is way too much. I desperately needed the program for my graphic business, so I bought it. But I couldn't bring myself to review it, until the price came down, to something reasonable. Finally, three years after it became available, such is now the case. It also means that Retouche CD (CD stands for Color and Design) is now within my reach. I have ordered the program and will review it later on.

Before going further, here is the new price structure for the *Retouche* family of software, as marketed by San Jose Computer. [San Jose Computer, 1278 Alma Court, San Jose CA., 95112. Tel: (408) 995-5080; Fax: (408) 995-5083.]

Retouche CD: $695.
Retouche CD + Didot Professional Color: $995
Retouche Black & White Professional: $395
Retouche Black & White Professional + Didot Black & White: $695

These articles will deal primarily with *Retouche* and not *Didot*. *Didot* is a full featured Desk-top publishing program, with built in Vector drawing capabilities, and a font editor among other extras. The output of *Retouche* meshes quite well with *Didot*. On the other hand, as someone who has used *Didot*, I don't hesitate to say that *Calamus Sl*, is a superior program, and handles .TIF files from *Retouche* with no problems. However, *Didot* is an amazing program and I will review it in a future article. Until then, my remarks about it and *Calamus Sl* can stand as a mini-review. This first article, while called a review, is actually a listing of features, along with remarks about how great all of this is. I apologize in advance. The reader has to understand that I want to do these products justice, and an entire issue of Current Notes would be needed to fully describe them. If you're even thinking of purchasing *Retouche*, than I suggest you hold on to the articles in this series, because future articles will give you a feel for operating this program and tutorials on photo-manipulation in general.

Photo Manipulation

The *Retouche* family of software by *3K Computer-Bild* are photo-manipulation programs. To get any real use out of them you should also have a true gray scale or color scanner. You could also use the new film development system from Kodak to turn your regular photos into .TIF files loaded on a CD ROM disk. *DMC Publishing* has a driver available, for $20, that will allow you to load these .TIF files into your Atari for further manipulation.

Retouche requires any ST/TT (I have no idea if it will run on the Falcon). I recommend a minimum of four megs. The more memory the better. *Retouche* runs in ST monochrome and TT medium as well as TT high. These little details disposed of, just what is photo-manipulation anyway? Why am I so excited about it? Why did my dog run away from home?

Let me start off by saying that these true color and gray scale .TIF files can be treated as actual photographs. Unlike monochrome .IMG files, which are composed of black and white dots, arranged to form an image, .TIF files are *areas of gray or color* which correspond to the actual colors of your photograph. Blowing up an .IMG file results in larger black and white dots; blowing up a .TIF file is like blowing up a photograph. The digitized information is embedded in the file, just as in a real photograph. Naturally, the higher the resolution of the scan, the better this process works. But even low resolution (75 DPI) scans are *shockingly good* as compared to even high resolution monochrome files. This is because you are expanding the *areas* of gray or color and *not expanding the size of the individual dots.*

These files, like vector files, are device independent. This is to say that the printer assigns dots *only* when the printer is ready to print. A 2400 DPI Lino will assign a much greater number of dots than would a laser printer. As I said, this works just like a photograph. The *Retouche* programs are designed to take advantage of these facts, and running these programs turns your computer into a real darkroom.

I've written of this process in previous articles, but in the course of talking to real people, I notice that the information just doesn't sink in. People just don't want to believe that this is for real. Here are a few things you can do with photo-manipulation:

You can take those old photos your grandfather took back in the 1920's and restore them. You can re-

trieve details from crime scene photos and solve mysteries. You can isolate little portions of photos and blow them up to any size you want. You can create complex photo-collages. You can turn the expression "a photo is worth a thousand words" into an outright lie. This is because the results of your work can be taken to a service bureau and for $20 be turned back into a photographic negative. You can turn night into day and day into night. You can make a blue sky pink and the trees in a forest blue. You can ..., well, let me review the program.

Program Overview

Retouche Black & White Professional is strictly for manipulating black and white photographs. *Retouche* works with 256 levels of gray, which is about all the human eye can discriminate among. I'll make one mention of its color capabilities, which are limited to loading color files and changing the percentage of the RGB values. You can also convert color to gray. Finally, you can mix your gray images into the color image, but basically, this program is not designed to handle color. For that, you'll need *Retouche CD*.

Retouche is both sophisticated and simple. It is, indeed, so simple to use that a thorough reading of the manual in a step–by–step process is necessary simply because you can do serious work without really knowing anything. This causes the user to sit in front of his or her computer and make funny oohing and ahhing sounds. In my case, I also added a certain amount of screaming and pointing at the monitor. As a result, at some point, the user learns that some of the things you're doing could have actually been done, with a lot less effort, if you had bothered to read the entire manual. Never before has this been a significant problem for me. Learning programs like *Calamus SL* require careful study to come to grip with their sophisticated potential. With *Retouche,* you can happily start manipulating photos almost as soon as you read the introduction. This can be embarrassing when you discover, six months later, that you've missed some basic functions.

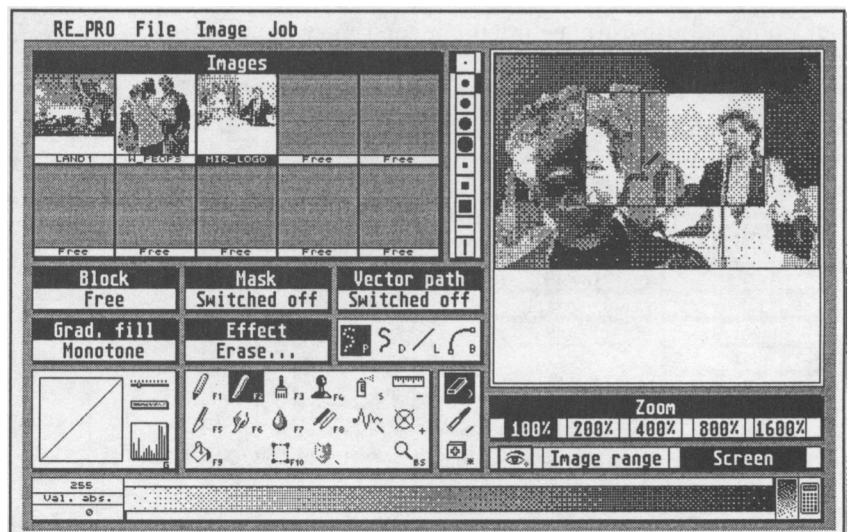


Figure 1. This is the entire ***Retouche*** program. The only other screen is where the actual image can be worked on.

The Tool Box Screen

Take a good look at figure one. There, in front of you, is the entire program. The only other screen is where the actual image is displayed. The working screen has no icons or tools. It does have a coordinate display, and hitting certain keys will show the size of the picture and the gray value underneath the cursor.

In the tool screen, on the upper left, is where photos are loaded. You can load in up to 10 images at one time and cut and paste between them. To the far right is a large window showing the currently active photo. Notice the highlighted rectangle. This corresponds to the active work area of your screen.

In this example, the currently loaded photo is much larger than the ability of my monitor to display it. *Retouche* works by switching back and forth from the tools display (figure 1) and the actual image. *Retouche* has the ability to plug in a separate monitor and work with the tools screen on one monitor and the actual image on another. I don't have two monitors (and you need a separate graphics card in order to use this capability), but two monitors are not needed to run the program. In fact, if I didn't know about this capability, I would not miss it. To switch between the tools window and the actual image, simply hit the [Escape] key, or click on both mouse buttons, and you are in the work window, where the *actual* image is displayed. The real advantage of two monitors is that you can grab the highlighted rectangle in the large display area and move it, and as you move it the image will move in the other monitor.

The program, however, allows rapid scrolling while in the working screen simply by holding down the [Alternate] key and, while holding down the right mouse button, move the mouse. You can even control the *speed or direction of scrolling* by the speed or angle with which you move the mouse. At the same time, the currently selected tool is active and you are working on your photo. Key equivalents exist for every tool and you don't have to return to the tools window to change tools. It is true that you must return to the tools window to select such items as the size with which each tool manipulates pixels, and choosing the

special effect that you want to use. Ok, ok, a separate monitor *would* be handy, but until I get one, I refuse to miss it.

Just below the ten photo boxes are the various options which *Retouche* uses. Figure 2 shows the resulting pop–up dialogue boxes, which result from their selection. In addition, sub dialogue boxes pop up with almost all of these selections. For example, each of the special effects, such as sharpen, allow you to set certain parameters, such as the type of colors being worked with, the amount of change, the matrix of affected pixels, etc. I will come back to these special effects next month. The **Graduated Fill** allows you to select between various shades and patterns of gray to add to your photo. This is basically useful for the creation of shadows and the handling of light. The **Block** dialogue is where you cut and paste, rotate and distort your images. **Mask** is where you create masks to cover portions of your images so that they will either not be affected by other options or for the creation of photo collage. The **Vector Path** option is for using vector curves to work in conjunction with various tools to fine tune and speed the creation of your work.

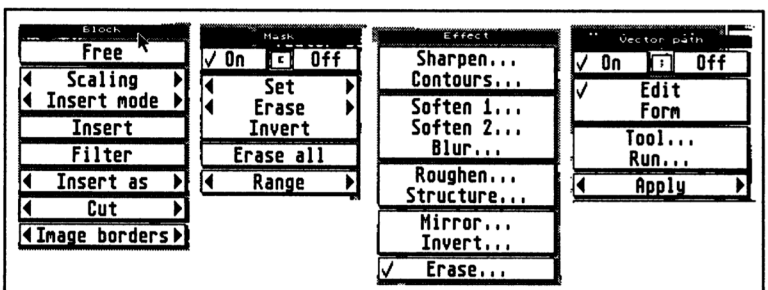


Figure 2. The pop–up menu's for the options of ***Retouche.*** These all contain sub–menu's.

The Different Tools

Below these options are the two remaining areas. Here you can select the various tools. From left to right, they consist of a pencil, chalk, paint brush, stamp (a user–definable matrix of pixels of various colors that can be used much like a brush), spray can, ruler (for precise measurement), knife (increases the contrast between neighboring pixels), and the finger (an anti-aliasing tool like the water tool). Other tools include the randomizer (also useful in anti-aliasing), the densitometer (measures the gray level of the pixels you are working on), the fill tool, the block tool, the mask, and finally, the magnifying glass.

Just to the right are the various erasers. One of the erasers simply erases what it is applied to, the second scrapes away at the image and the third actually restores the image, acting very much like a localized undo buffer.

Is all this crystal clear? Everything is actually much simpler than any description I'm going to provide. Figure 3 shows a typical dialogue box, set for

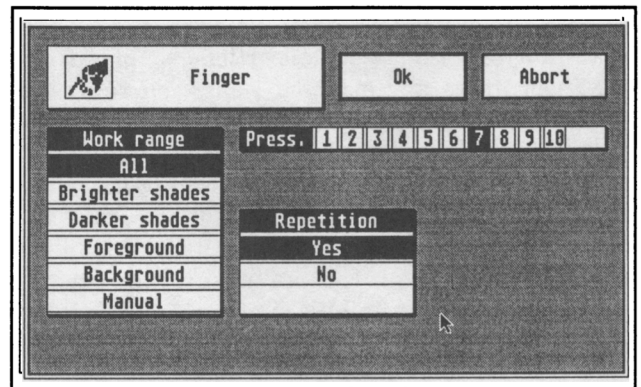


Figure 3. A typical dialogue box for setting parameters on a tool. These options vary from tool to tool, but all allow a high degree of control.

each tool, in this case, the anti-aliasing finger. Do you want it to work on all the colors or just a few? The pressure control sets the degree of effect that the tool has on the image. This is all very refined stuff. The degree of control is enormous.

Just to the right of the image storing frames, is a thin box containing the different sizes which you can select for many of the tools described. There is also a choice for whether you are working with your mouse as a free form painting tool, or you can use lines or vector curves. One thing to keep in mind about *Retouche* is that each tool can be set up exactly the way you most often use it. These settings can then be saved along with a host of other parameters. As I said before, all these tools can be selected by key equivalents.

Contrast and Brightness Controls

To the left of the tool selection chart is the contrast and brightness control. Figure 4 illustrates the resulting dialogue box. With this option you can change the contrast and graduation of your image. You can set parameters so that you only affect some of the colors. You can also use this option, along with the masking tool, to affect only those areas that are *not* masked. In addition, any of these graduated curves can be stored and later reloaded. The results can be amazing.

Beneath these options is a gray bar running from white to black. You can manually set the color of your operating tool or eraser by clicking with the left mouse button for tool and right mouse button for eraser. Tools are implemented by holding down the left mouse button for the tool and the right mouse button for the eraser. You could, of course, switch this around and set the eraser to a different color, and erase with gray.

On the right of the gray bar, you set the dithering pattern used by the program to display the image. *Retouche* does not take advantage of the Atari's color ca-

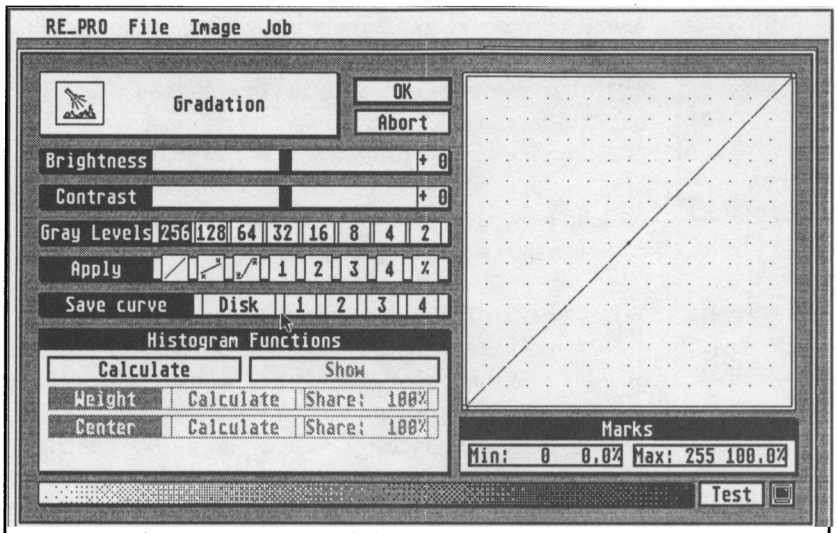


Figure 4. The contrast control dialogue box. A quick and fast method of adjusting contrast and brightness automatically of manually.

pability unless you have a graphics card. Setting the dithering pattern makes working on the image much easier, depending on the type of image displayed.

The last icon on the far right sets the colors of the working tool to match the actual values of the loaded image. In other words, if the lightest color in the image is ten percent gray and the darkest 75 percent gray, then the new color setting for writing and erasing will match these values. You can also use this option to exchange values between the working color and the eraser. If the image is too large to be displayed on the working screen, you can hit the "eye" icon, or click on the [o] key, and the program will display the entire image, so you can see how you work is proceeding.

Let me pause and mention that *Retouche* does an incredible job of showing you the way the picture actually looks. This even extends to the little image loading boxes on the top. Even they look good.

Finally, you can set the zoom in fixed percentages. This can also be done in the image working area, simply by clicking on the left mouse button, while holding down the [Alternate] plus left [Shift] key.

This is the entire program. It seems, *and is,* very simple. The simplicity of *Retouche* is a reflection of its polish. This program is ***powerful!*** There is nothing to match it on other computer platforms.

What This Means for the Atari

When the program first came out, programs like photoshop were in their infancy and many of the effects in *Retouche* were beyond their scope. At this time, Photoshop has matured and can accomplish the same things that *Retouche* can *but with much more effort.* One example of the power of *Retouche* would be in rotating a graphic to an odd number of degrees. A 500K .TIF file takes 9 seconds to rotate at an 11 degree angle. Why is this so? Better ask Dave Troy. Anyone who has used *Touch-up* knows how many good novels could be read when rotating a 500K .IMG file. Perhaps .TIF files require a different mechanism?

Another point to keep in mind is that this program takes advantage of the TT RAM in my computer. This means that, on a regular ST, all operations take roughly four times longer. This is still incredibly fast. Some of the special effects, like sharpening (figure 5) or blurring, take quite a bit longer. Sharpening an entire 500K .TIF file took 40 seconds on my TT. On my ST, this operation took 2 minutes and 20 seconds. This is incredibly quick for such a powerful effect.

Retouche has the option of storing its Undo buffer on a hard disk. This process is relatively quick and depends more on the speed of your hard disk then the speed of your computer. Since *Retouche* works by using the Undo buffer for many of its effects, this is very important. If you are creating a collage, then it pays to shut off the Undo buffer on all but the collage frame. This frees up considerable memory.

The *only* problem with *Retouche* is that the key equivalents are built into the program and not user definable. The [Tab] key actuates the special effect chosen, while right above the tab key is the [Escape] key, used for switching between tool screen and working screen. Guess what sometimes happens?

Next month I will demonstrate the power and use of this program. Those people who think I am exaggerating, let them be amazed. Future articles will cover *Retouche CD* and a review of *Didot.*

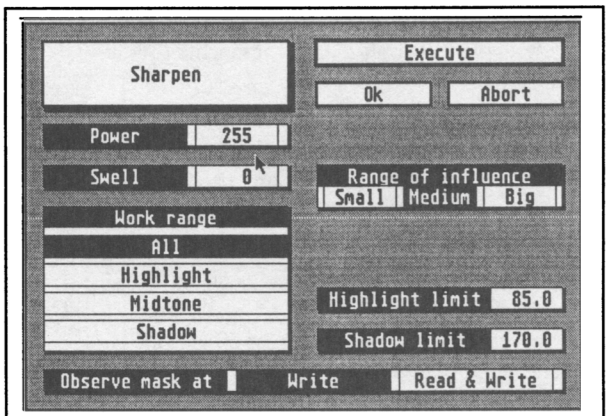


Figure 5. The dialogue box for the Sharpen Effect. All of the special effects contain a tremendous degree of control.

MARCEL

A Writer's Word Processor?

Review by John Godbey

Marcel is advertised as a word processor for writers. This is supposed to tell us both what it is and what it isn't. It is for writers; it is supposed to deal with words, sentences, and paragraphs. If, however, you want to print with fancy fonts or produce a school newspaper or a PTA flyer, go elsewhere. As the instruction manual says, *Marcel* "is not a poster maker or a publishing program...." But if you want to write the Great American Novel, this is supposed to be your cup of tea.

Some Atari users won't touch a word processor if it won't import graphics and do fancy printouts. But that ability always comes at a price—usually speed—and I, for one, would be happy to have a word processor that merely performed the basic word processing functions with excellence.

I tested *Marcel* on a Mega 4 STe, in both medium and high resolutions. My printer is an HP DeskJet. The version of *Marcel* used for this review was 2.1.

The Basics

Marcel is a "basic" word processor. It will perform most of the basic word processor functions such as cut, copy, paste, and search and replace. It allows for the usual cursor movements: by character, by word, by line, and by paragraph. It employs a standard GEM user interface. I call it a "basic" word processor because, in addition to its lack of graphics support, it also lacks many advanced word processor features such as columns, mail merge, and tables.

It has printer drivers to support Epson, Citizen, HP DeskJet and LaserJet, Atari Laser, and IBM printers. On my DeskJet, the driver allowed for control of the built-in fonts, the number of characters per line, and the number of lines per inch. It will print in bold, italic, underlined, super and subscript text.

The program is supplied on a single disk, which is not copy protected. Installation on a hard drive consists of simply copying the files to their own folder. It runs in both medium and high resolution. It will run on a Moniterm and in TT resolutions. The program, resource file, dictionary, and one printer driver take up a little over 500KB of disk space.

I had no trouble getting the program to run. There are few "hidden" features in this program; almost all features are easily accessed via the drop down menus. The manual of about 25 pages does an adequate job of describing how to use the program. The program, however, is so easy and straightforward to use that I doubt that many users will require the manual.

After several months of using the program with numerous auto files and accessories, I found only one small incompatibility. If you have CodeHead's *Warp 9* screen accelerator installed, then non-standard characters, such as foreign letters or italic type, will not print properly (or at all) to the screen (although they still print with the printer).

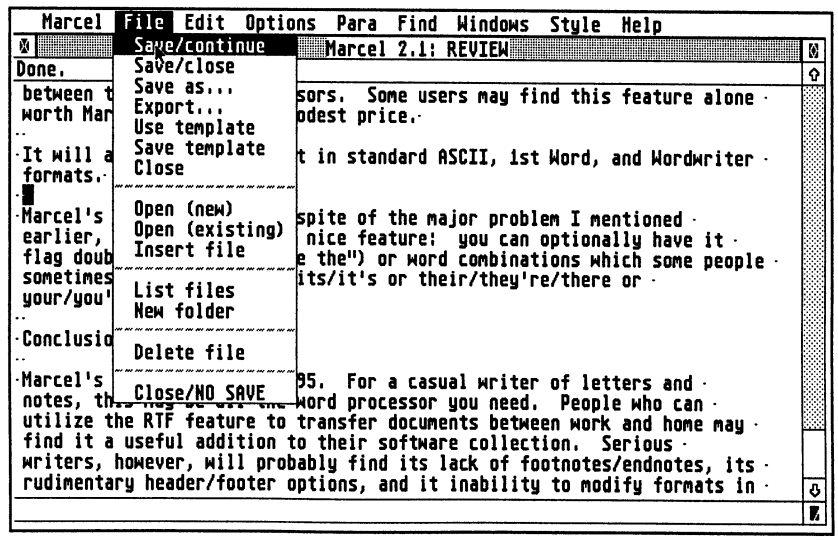
What It Can Do

Marcel has a number of nice features. One that a number of users will appreciate is its import/export ability. *Marcel* normally saves and exports files in Rich Text Format (RFT). This is a standard industry format that allows underlined, bold, and italic text to be saved in an ASCII file. This format seems to be getting more and more popular, and should allow for easy transfer of formatted text files between the ST and PCs and Macs. I tested this feature with *Calligrapher* and had no trouble passing text back and forth between the two word processors. Although I wasn't able to personally test it on any non-Atari platforms, I have been told by other users that it works with some Mac software. Some users may find this feature alone worth *Marcel's* relatively modest price.

It will also save and import files in ASCII (7 bit or 8 bit), *1st Word*, and *Wordwriter* formats. In exporting RFT and *1st Word*, it allows italics to be changed to underline. In addition, it imports *Atari WordPerfect 4.1* and *ST Writer* files.

Marcel's spell checker, in spite of the problem I will mention shortly, does have one very nice feature: you can optionally have it flag double words (like "the the") or word combinations that some people sometimes confuse, such as its/it's or their/they're/there or your/you're.

The program has several unusual ways of treating text, which some users may find handy. For example, with *Marcel*, blocks of text are normally marked by clicking the left mouse button at the start of the block, and the right mouse button at the end of the block. But you can also mark the (C)lause, (S)entence or (P)aragraph in which the curser is resting by pressing control-C, control-S, or control-P. It will join or split sentences (by adding or deleting a period, and changing the



case of the appropriate letter), and transpose characters, words, lines, or paragraphs.

Marcel's general method of editing is a bit unusual. When you begin inserting text by typing in the middle of a line, the text following the curser drops down one line, leaving the remainder of the line being edited empty. This avoids the problem of *Word Perfect* and similar word processors—which push the text off the end of the line as you insert text—but it raises its own set of problems. The more you type, the more difficult it is to see the next word after your editing, because the line, which has dropped down, never moves. How you like this feature is a matter of taste: I couldn't stand it, but some *Marcel* users think it's wonderful. (Let me note here that *Marcel* embodies one of my pet peeves with word processors: it has no type-over mode.)

Finally, *Marcel* has a number of appealing minor features: a built-in alarm clock, it uses the Atari clipboard, it allows for "notes" (comments, which do not print, attached to a file), and it has a drop down chart of special characters.

What It Can't Do

A prospective purchaser must weigh the above mentioned features against a number of features that are missing from *Marcel*. Many of its missing features seem especially peculiar for a "writer's" word processor. For example, *Marcel* has no way to center text. There is no way of centering a line other than counting the spaces. And even this is more difficult than you might first think, because *Marcel* does not have a WYSIWYG (What you see is what your get) screen. The line length on the screen bears *no relation* to the printed line length. (Note: Doug McCasland of *Marcel* tells me that they will add this feature to version 2.2.)

Marcel's ability to indent text and set it off from the rest of a document is seriously compromised by the fact that there is no way to change the right margin of a part of a document. So, for example, a long direct quotation can be set off from the left margin, but not the right. A related missing feature is right justification of text—you *cannot* do it with *Marcel*.

A major disappointment with the program is the spell checker. According to the documentation, the dictionary contains 45,000 words. I don't know which 45,000 words it has, but in checking this review it marked the following as misspelled: processor, advertises, paragraphs, newspaper, elsewhere, processing, excellence, character, characters, protected, dictionary [!], appreciate, appropriate, transpose, remainder.... In addition, it will not suggest alternate spellings of the words that it flags as incorrectly spelled. It won't even allow access to the dictionary to look for the correct spellings. To me, this is simply unacceptable.

Other major problems with *Marcel*, especially for serious writers, are the way it treats footers, headers, and footnotes/endnotes. To deal with the latter first, *Marcel* has no provisions for adding footnotes or endnotes to a document. Its ability to add headers and footers is minimal. A document can have only one header or one footer (although you can have a different one on the first or last page), and each is restricted to a maximum length of 35 characters or spaces. Further, they can only be centered, or placed on the right side of the page.

Since major formatting (line length, line spacing) is done at the time of printing, there is no general way that these things can be changed within the text. (All paragraphs that are indented can have their own spacing; but there is no way to change individual paragraphs or groups of paragraphs.)

A more minor problem is the inability to change the spaces associated with the Tab key (five), or to set the Tab for inches instead of spaces (so you couldn't use the tab if you were going to print with proportional fonts).

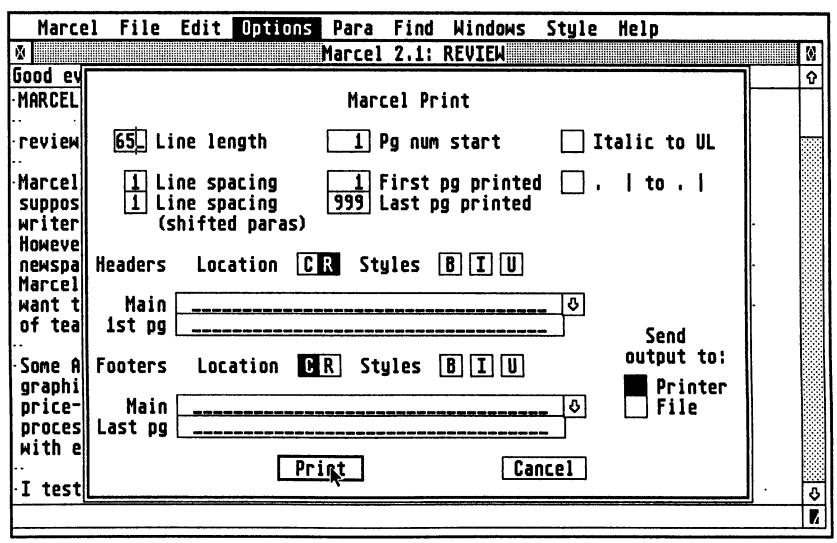
Finally, as is usual on the Atari, hitting ‹shift›‹Home› is supposed to move the curser to the end of the text. But it doesn't; it takes you to the beginning of the last line. (This is also to be fixed in the next version.)

Conclusion

Marcel has an unusual combination of features and faults. Many *Current Notes* readers may find it strange (as I did) that a word processor "for writers" can't center text, do footnotes, columns, right justify text, easily change formatting features within text, or give any but the most elementary control over the printed output. On the other hand, it does have some features that are unusual in Atari word processors—excellent ability to import files, the "notes" feature, and its unusual text selection features. These may give Marcel its own niche in the Atari market.

One of *Marcel's* most attractive features is certainly its list price of $49.95. For a casual writer of letters and notes, this may be all the word processor you need. People who can utilize its ability to import RTF or *Word Perfect* documents may find it a very useful addition to their software collection, especially those who must move work from office to home and vice versa.

[*Marcel*, V2.1, Marcel Software of CA, 318 Mendocino Ave., Suite 51, Santa Rosa, CA 95401.]



Club Dominoes

Slam Them Bones!

Review by Jan R. Howell

Dominoes? When I heard that I was doing a review of a dominoes game, my first thoughts were of the sleepless nights I spent on a Navy transport ship as my marine buddies slammed bones into the wee hours. Partly out of curiosity, but mainly because I couldn't sleep, I played a few games of "bones." I never really got into the game; my buddies were very good and would kill me every time. The principle game on ship was Muggins, which I will explain later. We just called it bones. It seemed that when you scored points, the object was to slam the tiles down on the table as hard as possible, and then berate your opponent with as many derogatory remarks as could come out of a marine's mouth! Little did I know at that time that bones (dominoes) is a subtle game of strategy, with those who don't think ahead surely doomed to come out on the short end of the stick.

System Requirements. *Club Dominoes* will work on any ST/TT/STE with at least 512k memory and a color monitor in medium or low resolution. It runs from a single or double sided floppy drive, requiring only that you double click on CLUB.PRG. The disk is not copy protected and can be installed on a hard drive. I recommend this method as it speeds up loading time immensely. All that is required is to create a folder on a partition and copy all of the disk's contents to the folder. That simple.

Good Things Come in Small Packages. The package is small, consisting of one single-sided disk, a short 28-page rules booklet, and a purple code table used as a type of copy protection. Do not lose this, as you will not be able to access the game without it.

The Manual. Let's begin by checking out the rule booklet. Only 28 pages long, it contains a wealth of information. First of all, you are introduced to the history of dominoes, including insightful nuances, such as the fact that the oldest known dominoes set was found in the tomb of Tutankhamen, the ruler of Egypt around 3350 years ago! Dominoes was also known in the Orient, making a major appearance in China. Further, many historians consider dominoes to be linked to dice. The major difference between ancient Oriental dominoes and that which we play today is the addition of the blank, or zero suit, by the Italians in the thirteenth century. The pieces have remained relatively unchanged.

For the most part the manual is clear and concise. I only found a couple of minor typos. The manual is divided into several sections covering rules of play, playing of the game, and a strategy section. At the end of the book is a glossary of game terms, which is very helpful to those of us with limited domino experience.

In my opinion, the best part of the rule book is the game rules section. Previously, I had only a layman's grasp of the game. The rules were well explained in the manual and described play of the three games quite well. In no time I was off and playing. After losing my first few games, I turned to the strategy section. After browsing the strategic concepts laid out in that section, my game play improved almost immediately!

The Setup. The game can be played by one person against the computer, or two people with two computers hooked together in one of several fashions. At game start you are first greeted by the Info Works screen, and then the *Club Dominoes* title screen. Press the space bar and the credits/FBI warning/copyright screens appear, followed by the copy protection screen. The set-up menu is next, and this is were you choose to play against the computer or another person. To play another person requires two computers and two copies of the game. One computer functions as the "master" computer and the other as its "slave." The computers can be joined through the MIDI port with a MIDI cable, or the serial port with a null modem cable. Finally, you can play via modem with a distant computer. I have not tried any of these, so I cannot remark on their effectiveness.

Before commencing a game, you are required to select a player name or create one on the play log menu. You may list up to 20 names and associated statistics on this menu. The names are listed by winning percentage order from best to worst. Each name is followed by a listing of the number of wins and losses and the winning percentage.

After selecting a name for your player, you enter the options menu. Your first option category is to select the type of game play, with three available choices: Dominoes, Muggins, and Bergen. If you're playing against the computer, then you must choose from three levels of computer difficulty: novice, intermediate, and expert. I have found no discernible differences in the levels of play, and the rule book does not extrapolate these either. When playing against a human opponent, the levels are grayed out. All game options in multi-player games are entered at the "master" computer.

If you select a game and have forgotten some of the rules or how to score, there is a rules button, which provides an abbreviated description of the game rules. You can also select a background for your game screen, including the Library, the Rec Room, and the Play Room. You may remain in one room or you may rotate rooms between games. Above these buttons is the game total, used to set the point scores, which determine a game's end. You can adjust it at any time during game play, with adjustments in increments of ten.

Other choices on this menu include: move confirmation, must play a domino, keyboard use for game play, deck size, hand size, and boneyard low (the boneyard is the pool of dominoes you draw from). Most of these may be changed during the game. To save your choices you simply hit the default button. The restart button allows you to quit the current game and start another one, or to change opponents. Quit will take you to the desktop.

Game Play . As stated before, the game screen is well done. When you begin play, a happy little tune starts up, and luckily stops after a few seconds (before it becomes annoying)! The dominoes are laid out before you on a table. Your dominoes face you on the bottom of the screen, and your opponent's appear at the top facing away. Displayed above the opponent's hand are the two dominoes representing the two ends of the layout. Just below these is the number of dominoes remaining in the boneyard. On the left side of the screen is listed your name, total score for the current hand, and points scored during your last move. Your opponent's name and scores will be on the right. Four game command buttons are in the upper left hand corner. They are: Draw, Pass, Show, and Tell. Selecting Draw will give you another domino from the boneyard. Pass will skip your turn without playing a domino. Show will highlight playable dominoes in your hand. Tell will show you the domino the computer would play.

To play a domino, click on it using your mouse pointer. If it is playable, it will take its place at the top of the screen. If, while in the options menu, you had chosen to use the keyboard for game inputs, you select dominoes by pressing the letter that corresponds to each. Likewise, you can select the command buttons with the mouse or keyboard equivalents of F1-F4. There will be times when you have to choose a side to place the domino, with the mouse click on the open end, or with the keyboard press [L] or [R]. To return to the options menu, you press the [Help] key and from there you may change most of the game options or quit.

Using the right mouse button during the game will bring up the statistics menu. This menu allows you to examine the size of the boneyard, review the current score, the pip (dot) count, and, most importantly, the fluidity, i.e., how many dominoes from each suit have been played. You may also look at the full layout to see how the computer set up the dominoes, which is not strategically useful but neat to look at. You will find yourself coming back to this menu many times during play and it can help immensely with your strategic development.

Three Ways to Play. Until I received this game, I did not know that there were three distinct ways of playing dominoes. (Actually, there are probably many more). My total experience was trying to make the open ends of the layout equal five or multiples of five. This is the game called Muggins. Points are scored in multiples of five from the open ends. The first player to get rid of all dominoes in his hand will score additional points equal to the pip count in his opponent's hand in multiples of five. It is, by far, my favorite. It is fast paced and demands some strategy.

Bergen is the second game of the bunch. The objective here is to make as many double or triple headers as possible. A double header is gained by starting with a double, or matching the tile at one end with the same pip number at the other end. A triple header can be gained by having a double at one end and making the other end an equivalent number of pips, or if a double can be played on a double header, it will make a triple header. Double headers score two points and triples score three points. The first player to get rid of his dominoes scores an additional two points.

Dominoes is the last game and the easiest in my opinion. The object is to be the first player to get rid of all the dominoes in your hand. Your score is based on the number of pips left in your opponent's hand.

A special condition for all the games is called a blocked hand. This happens when both players are unable to play a domino, and must pass. When this happens, the player with the lowest pip count will score the points for that game. Games end when the score previously set in the options menu is reached.

Conclusion. Is there anything bad to say about the game? I can think of nothing at this point. Compatibility? Great. I have been playing the game straight for the past two weeks on a MEGA STE 4 with all of my ACC's and auto PRG's and have had no problems at all. If you like dominoes, this is a great game for you. If you want to improve your game, this is the program for you. If you have never played Dominoes before, all you need is right here! *Club Dominoes* is guaranteed to provide you with hours of enjoyment.

[*Club Dominoes* is available from Info Works, P.O. Box 2881, Vancouver, Wa 98668-2881. Phone (206) 737-8177.]

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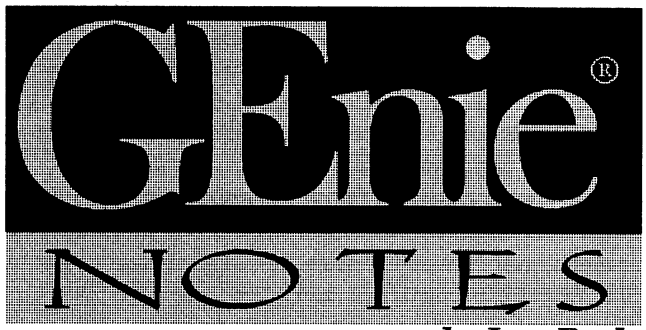

by Lou Rocha

September is more than just "back to school." It's Glendale time! This installment of GEnie Notes includes an interview with the grand poobah of Glendale, chief organizer John King Tarpinian. (You may recall that John was in our User Spotlight in the April 1993 issue.) While on the west coast, we will also visit the Hollywood Hotline RT for a peek at things there.

Memories of Glendale

As the Glendale Show is about to unveil its seventh edition on September 18th and 19th, I asked show organizer John King Tarpinian to reflect on highlights of the past six shows. King has always enjoyed the challenge of organizing Glendale and, with the support of his user group (H.A.C.K.S.–Hooked on Atari Computer Knowledge Society) and Atari Corporation, has successfully produced the biggest Atari user group show in North America.

King, what were some of the memorable moments of past shows?

Spending an hour chatting with Leonard; seeing the Falcon for the first time; giving away an ST to a pair of identical twins in our first show; Jerry Pournelle, Sam and Jack attending over the years; the year I was one week out of surgery with a shattered arm and walking with a cane–people tell me I was a riot that year.

To what do you attribute the success of the Glendale shows?

Obviously, the key to these shows are the volunteers, and my H.A.C.K.S. colleagues must be recognized for carrying out the plans that are made. Besides them, I would have to say that our continuing support from Atari Corporation (which has been to all our shows) and the many developers who make Glendale an annual event on their calendar.

Have any developers attended all of the shows?

As best as I can recall, Nathan Potechin from DMC (formerly ISD Marketing), the CodeHeads (John Eidsvoog and Charles Johnson) and Dave Small of Gadgets by Small. Gee, I hope I didn't miss someone.

To what extent has Atari supported Glendale?

Atari has provided show stock equipment, advertising money, computers for door prizes and staffing. This year Atari is doing the Developers' Conference but you have to ask Mike Fulton or Bill Rehbock for more information.

What do you folks do to "kick back" at day's end? Is there a special banquet?

Each year John and Julie Eidsvoog hold a private party for fellow developers, Atari staff and our user group volunteers at their turn-of-the-century Victorian home.

What were some of the more memorable promotions and prizes of past shows?

One year The Computer Network gave out hot pink backstage passes, just like a rock concert. As for prizes... probably the computer giveaways. This year we are very excited about the number of Falcon programs that will be on display.

Thanks, King. Good luck at this year's show. I am sure you will follow the successes of past years.

Around GEnie

GEnie is a very versatile service that offers support for computing, business, publishing and many other services. However, GEnie also has some areas dedicated to leisure time and one of these is the Hollywood Hotline RoundTable. Located at Page 350, the HH RT provides a number of news areas that are well worth investigating.

Movie Reviews. Option **3** on Page 350 will list 100 film titles for your perusal. Select a title and you will be presented with a 500 to 600 line review of the movie including the studio, director, writers, cast, rating and running time. The list of titles is in alphabetical order so it is very easy to find the latest movies. It is well worth your time to take a quick look here before investing your hard-earned money at the movie theater!

Daily News. (Monday to Friday.) Select the day and you will be presented with several hundred words of the latest entertainment news in several categories: **Motion Pictures**, **Television**, **Music**, **Celebrities** and **Showbiz Mix**.

Limitations and Licensing. The information found in the Hollywood Hotline RoundTable is for the use of GEnie users and is copyrighted. The use of the material may be licensed by arrangement. If you are interested in this aspect of the service, call 503-471-6397.

RTC Highlights

by Brian Harvey

Well, the summer has passed too quickly for me. I figured I would have a quiet summer in the Atari Real Time Conferences (RTCs) but was I ever wrong! This issue I will summarize six RTCs and since there is so much to say, I better get right down to it.

Bob Brodie, Director of Communications for Atari, held two of his famous Dateline Atari! RTCs. One was on the 9th of July and the other on the 6th of August. The Dateline Atari! in August was FREE, courtesy of GEnie's Hot Summer Nights and Round Table Sysop, Darlah Potechin. Bob really got into tossing around some of the features of the new Atari game machine, the Jaguar. One well known fact is that IBM has a 30-month contract for sourcing the parts, doing the quality assurance, building and distributing the Jaguar. Of course, one of the key aspects of the Jaguar is its 64-bit data bus.

Bob recounted that Atari's efforts are now focused on three primary products: the Lynx, the Atari Falcon030, and

the soon-to-be-released Jaguar. Bob made it very clear that Atari intends to support the Falcon and that the computer side of the business will not be neglected by marketing of the Jaguar. This is reflected in that the plans for the ST Book rework have been tabled. Also, although Atari still has Portfolios available for sale, they are not pursuing any additional peripherals for it at this time.

For the Atari Falcon030, the product shortages have been alleviated and Atari has a good supply of Falcons in numerous configurations. He also specified that the Falcons without HDs will ship without *SpeedoGDOS, Works* or *Falcon D2D*. The rationale is that these software packages are part of the incentive to purchase the machine with the HD. As someone who owns all three and uses them on a MEGA STE, all I can say is "real nice products."

Bob clarified the warranty work policy on the Falcon030. Atari doesn't require that the unit be sent back to Sunnyvale. The dealer will determine which of the major six components are defective. Once this is determined, the dealer will return the defective component to Sunnyvale and exchange the faulty component.

Bob mentioned that Atari is planning an upgrade for *Atari Works* but no release date is available. It is interesting to note that Atari will be hosting a meeting with Video Game Publications to begin the roll-out of the Atari Jaguar.

On the 7th of July, Dave Small was our guest in the Atari RT. Dave is well known to the Atari community as a renaissance Atari developer. That is, he is into writing (this magazine among other places), programming and philosophizing about the Atari!!

Dave's main product is Spectre. This hardware/software combo makes the ST/TT line emulate a Mac by taking over the operating system by using Mac ROMs. He elaborated that the Falcon has substantially new hardware that his company is planning to support. The rumors of a Falcon internal GCR resulted in Dave reporting that they are still working on Falcon GCR. As of now, Spectre 3.1 is in Alpha Test! Dave commented that they are taking orders for 3.1 right now. Version 3.1 is Spectre 3.0 with Mega STE cache bug fixed and timing loops fixed, up to 46 Mhz. It supports TT hard disks, and can re-mount removable media while in Spectre mode. Future versions may have color and 1.44 disk support. He is also looking into making it MultiTOS compatible.

Dave was honest and helped to resolve some of his support problems during the RTC. He stated that telephone support is now back to normal business hours. Also, his son Eric is finally 100% healthy and, thus, Dave can concentrate on programming again. In fact, he called 1992 (the year when Eric got hurt) as "the complete 'crash of '92." Sadly, he also commented on how quickly and thoroughly pirates can crack his software.

A very special RTC was held on July 14. This RTC had the staff of both *CURRENT NOTES* and *ST INFORMER*. I would like to list all the guests but that would take up more space than I am allowed. Suffice it to say we had Joe Waters, Rod Macdonald, and their respective and respected staff. I would like to thank both publishers for supplying subscriptions to their magazines as prizes during the RTC. By the way, this is an added incentive of well over half of the RTC's, i.e. the chance of winning a prize for attending and answering a question. This RTC had many goals and one was to get ideas from attendees to help all of us spread the Atari word.

I asked both editors if they were planning on branching out into other computer magazines. They both indicated that they are staying with the Atari for now. Therefore, go out there and support these fine magazines!

There is a new version of *EdHak* out and Craig Harvey had a Clear Thinking RTC on the 21st of July, 1993. In fact, a lucky user won a free copy of *EdHak* as a prize during the RTC. EdHak edits anything: text files, binary files, RAM, disk sectors. A lot of time, people use it as a word processor since it can be run as an accessory. This new version is fully MultiTOS/Falcon TOS compatible with too many new features to mention. Basically, as one user commented, it is a "Swiss Army Edhak"! I thought I would advance the point that I edit all my RTC transcripts using *EdHak*. The new column cut feature is a real time saver.

Mike Allen hosted an RTC on July 28, with guest Damien M. Jones. Damien is the owner of DMJ Software. One exciting product discussed was *View II*. This new product replaces the desktop's "Show/Print/Cancel" dialog with a much more flexible viewer. It will also act as a picture viewer. The picture viewer of *View II* displays 16 different picture formats, including Degas, Neo, Tiny, and Spectrum. Another product, *Sound Lab* is a digital sample editor with too many features to list here. Damien also talked about DMJ *GIF 4*. While the current version is 3.1, V4 will offer a vast improvement and will be very different. Damien was gracious enough to give a copy of *View II*, *Sound Lab*, and DMJ *GIF 3.1!*. Not bad at all!

Brief descriptions of these RTC's can't do them justice. The amount of information that is obtained during a typical formal RTC is more than space would allow here. If you ever have questions about an RTC, just email me at "BRIAN.H" on GEnie or slow mail to the editor of this magazine.

Sign-Off

That brings us to the end of September's column. I sure hope you enjoyed your summer holidays and managed to get out to one of the great Atarifests! Congratulations to the organizers of those shows! If you have any comments or suggestions for this column, please drop a note to Joe Waters at the magazine or email me at ST.LOU on GEnie!

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4. Have a major credit card ready. In the U.S. you may also use your checking account number.

The "NEW" Current Notes ST Library!

Listed here is the first showing of the "new" Current Notes ST Library. All of the disks listed below are double-sided; all (but for a few exceptions) of the programs are compressed (LZH); duplicate programs and early versions of programs have been eliminated. The year indicated by each disk gives an approximation of the time span when these programs were first made available in the CN library. Disks are still only **$4 each** ($10 for $35). Order from CN Library, 122 N Johnson Rd, Sterling VA 20164. For quickest service, call (703) 450-4761 and order using your MC/VISA card.

UTILITY PROGRAMS

#820: Utility No. 24 (1993)
Anetmidi, Edhak 2.36 patch, Empus4 (Tempus2 patch), Expand-o-matic 1.5, Gogo-»st 5.0, Jondos 1.07 (cli), Lzhartsl (lzh/arc shell), Maxikill, Megadepack, Moire (screen saver), Nosey ii, Picswitch 1.01, Rde 2 (reset-proof Ramdisk), Renameit 1.3, Slm Laser Printer Driver (9/92), Super Boot 8.1, Syquest (backup/restore), Timedrv 3 (corner Clock). *[Replaces #800d, #820d.]*

#799: Utility No. 23 (1993)
Applier, Autofile Mover, Auto Cpu, Bak_Del (backup/delete), Blitzschnell 1.44 (hard drive defragmenter), Master Cache 2.75, Bermuda Clock 1.1, CWAC 2.03, DL II 0.24, (checkdisk, unerase, diskedit), Fastdiskcheck 1.3, Fat Cache 1.0, Fat Speed, File Catalog 1.2, Find File, Integrity, Lhx, Serial Fix 2.0, Sortie 1.2, ST Zip 2.2, Tlc Format 3. *[Replaces #794d, #799d.]*

#792: Utility No. 22 (1993)
7-UP (word processor), IMG Viewer, JC Label, JC View, Make*a*Date 2.5, Morse Code Generator 1.3, Photochrome 3.0, Serial Mouse Manager 1.0b, Smooth Draw 2.0, Tlc Book 3. *[Replaces #791d, #792d, #793d.]*

#782: Utility No. 21 (1993)
Alice 1.5 (Another LIttle C Editor), Dips, Edm Shell 2.24, Easy Base, Cypher, Finder, Hd Free, Hd Info 1.0, Manualizer, Readboot, Rubricks, Screen Dump 1.5, Sebra High-res Mono Emulator, Sysinfo 1.3, Teradesk 1.24, Tomshell, Winx 2.0. *[Replaces #769d, #780d, #782.]*

#770: Utility No. 20 (1993)
Fleabyte Accessories (Simplex 2.1, Full Function 1.4, Significant Figures 1.3, Basic Natural Science 1.4), AutoRaise, FirstGraph demo, Gsedt40 (Dec's edt editor), Kepco Edit 2.2, Stevie Editor 3.95, Tsedt (TOS version of Dec's editor). *[Replaces #448, #559, #764, #770.]*

#766: Utility No. 19 (1992)
Reset 1.1, Bootkill, Calendar 6.2, Calshow 6.2a, Easy-Go (program launcher), Expander (convert SS To DS), JumpStart 2.7, Lock CPX, Memory, Powerdos, SilkMouse 3.0, Strip Formatter, Soft-Sci Screen Saver, ST-tools, System-e, Zest Le Menu. *[Replaces #723d, #751d, #766.]*

#760: Utility No. 18 (1992)
Add_book 2.r, AW Humble Printer Setter, AW Selective Update Utility, Ideal List 3.105, Star 2000, Sub_Cal. *[Replaces #718d, #760d.]*

#719: Utility No. 17 (1992)
1st Spooler, Archive Shell 4.1, Binary Editor, Boottyme II, Bubble, Call Time 3, Change Size, Ctrl Caps, Diskus 2.1 demo, Dots Screen Saver, File Kill 1.2, Find All, Hd Info 1.7, James The Desktop Butler, JC Calendar 03, Look ST 1.6, Lzh201k, Multi Depacker 1.0, Poolfix 92, Protect 6, Request 1.09, Re_Boot 2, TimeCard 1.01, Treeview. *[Replaces #717d, #719d.]*

#706: Utility No. 16 (1992)
2 Columns 5a, Auto-Capture, Drive Boot Select 2, Hard Disk Boot Wait, Boot Sector Storage System 1.02, Drive B Installer, Custom Disk Formatter 1.1c, Datacom 3.2, Dc Reserve, Disk Cataloging System, Disk Save, Revenge Document Displayer, Drive Divertor, Edi_Util, File Tool, Find 1.20, Fishes, Funky Screen Flipper, Type One Font Killer, Fuji Watch, Go-Accdesk Accessory Loader 2, K_text 1.6.4 (file reader), Lock da, Marrow, Nbm 1.2 (benchmark), On Time 2.2, Pc-Trace, Ramtest, Sample Compressor 1.1, Sample Converter, Scan4pic, Startgem 1.4, Showmem 4, Starsaver 0.5, Whatis File Identifier 5.7, ST Worm, Write Boot 5.02. *[Replaces #659d, #696d, #706d.]*

#651: Utility No. 15 (1992)
Atari Hard Drive Utilities 5.0, Carthold, Cookiems, Db_Eyes, DiskLock, Edda (text editor), Faze (screen saver), FujiDesk, Mega_Check, MouseBoot 3, N_desktop, Pathmap 1.0, Pinhead 2.1, Rapidfire, Stock Smart 2.1, Uncle Carl's Famous File Thrasher, Tlc Attributer 2, Tlc File Fixer, Tlc File Namer, Tlc Play, Tlc Resource 2.0, Tlc Show, Xboot demo. *[Replaces #643d, #649d, #651d, #652d.]*

#642: Archiver Docs
(Supplement To #641.) Arc602d, Arcshell, Article, Calc, Calend, Clocka, Dcformat, Dcopy36, Lh201hd, Lharc, Rambaby, Sbsnds, Spbt80, Vkill381, Sbother (acc, autosort, digiedit, picsw7). *[Updated With Latest Versions.]*

#641: Archiver DS
This disk is setup for owners of DS drives to bootup and be ready to uncompress files. It includes archiver programs, Superboot, a RAM disk, a virus killer program, a disk copy/format utility and some desk accessories. *[Updated with latest versions.]*

#640: Archiver SS
This disk is setup for owners of SS disk drives to bootup and be ready to uncompress files. It includes archiver programs, a RAM disk, a virus killer program, and a few desk accessories. arcshl (arcshell.prg, arc.ttp, lharc.ttp, lzh201l.ttp), calend, clocka, rambaby, wkiller. *[Updated with latest versions.]*

#639: Utility No. 14 (1991)
Area Code Locator 3.0, Change Hz, Friesen Checkbook 2.2, Macmillan Checkbook 1.19, Cost of Living Adjuster, Edwin (text editor), First Base 1.8, Football Pool, infodisk (newsletter-on-a-disk), Low_Rez, Mdisk 6.0, Payroll 3.0, Personal Finance Manager demo, Red Format 1.65, System Sentry, Uncle 3.7 demo, Units Conversion Program, Bells & Whistles Videotape data base 1.2. *[Replaces #464, #638d, #639d.]*

#634: Utility No. 13 (1991)
Accent, Argus (and Xargus), Beancalc, Bicalc 2, Bootplus, Boot Cpx, Calcplot, calc, Programmer's Calculator, Hard Disk Checker 8.1, DA Clock 1.7e, ColaCalc 1.0, cpxs (color, wcolors, sound, general, maccel, Modem, Config, Printer), Cpx_mdls (system, cookies, nvdiconf, fileinfo), Cut & Paste 1.5, DC Light Off, DC Mouse-ometer, DC Mmouser, DC Mouse Saver, DC No Alert, DC Popbar, DC Run Rez, Disk Operational Speed tester 1.02, Double, Disk Statistics 1.1, Financial Calculator 2.5, Find duplicates, Find Mac 0.2, Formdoit 1.2d, File Selector, German cpx (format, calendar, ascii, nvdiconf, ms cache), Laser Cpx, Low Switch, Monitor Magic, Makecooky, Metric Clock, musical Disk Formatter, Mi59 Calculator, N_format (ibm Pc Formatter), Menubar time 1.3, Procalc Scientific/Computer Math Calculator 1.0, Programmer's Calculator, RDY (STe reset-survivable ramdisk), Cpx Reversi, Speed Meter, Stint 3.1, St-Calc, SureCopy, TN Printing Calculator 1.2, Vanity Cpx, Xcontrol Accessory, Zoom Accessory. *[Replaces #629d, #633d, #634d.]*

#595: Utility No. 12 (1991)
Arc-lzh2, Arc to Lharc Switcher, AFX 1.2e, Autoarc, Extract'r, Jampack 4, Quester's lzh 2.01d, Lzh Shell, Multiarc 1.35, Pfxpak, Pfx 1.73, Squeeze IMG, Unlzh 1.72, xshell, Aoo 2.1, Zoo Shell 0.6. *[Replaces #595 Plus Archive Programs Drawn From Various disks.]*

#589: Utility No. 11 (1991)
Address, ClockSetter 1.3, Compare 1.0, Dblefeat, DC Salvage, DC Homey, Definitive File Selector, Director Printer, Diskfix 2, DC Disk Stat, Dmg Gif Converter, D_Viewer, Elfboot 2, Fast Printer, File Sorter 1.3, Gallery, I_Floyd (IMG file viewer), Litemail 2.02, Macimage, Mouse Tricks, No Verify, N_CapsLock, Quotes 1.35, Dca/rft Ww Converter, Rtmove 2, Simm Fixer 2, Stree 1.04, Uncle 3.5, View. *[Replaces #577d, #578d, #579d, #588, #599.]*

#567: Utility No. 10 (1991)
2-bit F-Keys 0.92, AB Format, Accessory 1.3, BootMaster, DC Boot It 1.0, DC Lefty 1.0, DC Topper, DC Mouse Wrapper 1.0, DC Right DC, Elvis Editor 1.3, Flrmt 3.5, Funk Alert!, Gnome Editor, Hotsaver 1.5, Img2icn, MassKill, MaxiFile 3 demo, Mcf Acc, mg Editor, Mk/rm Directories, Snapit, Stext 1.4f, Talker (text reading program), Tx2 Converter, UltraPacker 1.0, X_Mon (screen driver for Moniterm), Zest demo. *[Replaces #551, #555d, #564d, #565d, #567d.]*

#549: Utility No. 9 (1991)
A1 Time, Backup ST, BigColor 1.05, Clock 5, FastCopy Iii, Hyper Format 2.6, Idle 2.2, Little Green Selector 1.88, Library Master, Atari Mouse Accelerator 3.3, Menu Plus, Mini Tx2 file viewer 1.42, Mouse Doubler, Ocultarx, Printer Setup Utility (panasonic kx-p1091i), Penultimate Printer Setter Upper, Quick St 2.2 demo, Sandp 2.1, Screen Dump 24-pin, ST Hard Drive Sentry 5.01, Spirit Editor 1.01, Printer Setup (starnb 24-10), Text View, Tx2_View 1.35, Unerase, Volume. *[Replaces #492, #506, #519, #531, #548d, #549d.]*

#490: Utility No. 8 (1990)
Acypry (activate/deactivate auto programs), Address Label Printer 2.0, Canvas, Clock Sync 1.6, Convert 2 IMG 1.1, DC Show It, Desk Change, Envelope Acc, Fast File Compressor lzh, Flu 1.30, Flexi-fast, Gem Envelope, Hospital, Hot!stat 1.1, HP Deskjet/Laserjet Screen Dump, HP Control 2, Infload, Jetlabel 1.1, Laserjet Label Printer, Laser brain Epson Emulator Fonts, List Files, Monste4 0.3 Monitor Emulator, Postal 2.0, HP Text File Printing, Pretty Print, Q_text, Ramplus, Reorganize HD 2, Resistor, Shredder 1.1, Midi Strobe 1.3, ST_Unzip, Typecad Font Editor demo, Tempel 1.9 (machine language debugger), Trim, Txt Dump, Uncle 1.5, Uncle Ram 1.0, Untar, Uux, Super Virus killer. *[Replaces #435, #439, #443, #444, #451, #489, #490.]*

#434: Utility No. 7 (1990)
All Slide 2.1, B-gif, Cheetah 2.0, Convert Pm, Degas Pic, Degas Elite Pixel Switcher, Diary Editor 1.7, Dictionary, DiskLlabel 2, Forms 2, Ideal IMG Sizer, Iffcnv, Invert, Iharc0.51, Laser Brain Epson Emulator for Slm804, Multiple IMG Setter 1.0, Paperless Accountant, Pi3 To Mac, Pm To Degas, Print IMG Star Nx, Rlsgd 0.9, Spx, Starstrk (screen saver), Switch 630, View Gif. *[Replaces #412, #413, #414, #423, #425, #433, #434.]*

#406: Utility No. 6 (1990)
Acc_load, Address 2, Alarm Clock, Assassin, Bootup St0.9, Check 1a, Compact, Deskjet, Desk Pack Plus, Djet Boot, Dj_degas, Eps Jet, Eternal RAM Disk, Fs Dj Driver, Hpdskjet, Index, Jetset, Kalklock, Laserjet, Mobzdial, Newword Acc, Print Degas, P_or_save, Camdisk 1, Screen Save, Spool, Startup, Stw_hpdj, Testfont, Atari Tips, Ti59 Calculator, time/date, Trashcan, Tiny Tool Sector Editor. *[Replaces #222d, #405d, #406.]*

#404: Utility No. 5 (1989)
Address Database, Cachennn, DC Clock 3.3, DC Extract, Deskey 1.0, Dirsleft, Disk Verify, Disk Chart, Desk Manager 2.7, Ffind 1.2, Gem Label 3, Gem Redirect, Head Start 1.1, Hotwire demo, Make Fast, Megablit (paint program), Megawatt Accessory, Midi Max demo, Multidesk demo, Mystic Formatter 1.0, Neodesk 2 demo, Neoicons, Pack2prg, Pubpaint, Quick Find 1.5, Quick Format, Quick Index 1.5, Quick Inf 1.3, Quick label 1, Quick Menu 2.0a, Quick ST 1.45, Quick View 1.4, Quick Print 1.0, Shipacc, Speed Reader, Stuffer 0.9, TOS 1.4 Fix. *[Replaces #374, #375, #376, #377, #379, #385, #403, #404.]*

#352: Utility No. 4 (1989)
Abz Shell, Accessory 1.0, Address Book, Art Gallery, Bus Label, Compact Disk data base, Click Disk Labeler, Label Maker 4, DC Formatter Acc, DC Stuffer, DegaSnap, Diskette Management Utility, Memory Disassembler, Label Maker, Deluxe Slideshow 2.0, Floppy Disk Indexer, Gdos Boot 1.2, Gdos Manual, Gem Label 2.0, Gif Viewer, Gplus demo, HandyWipe, IMG Show, Image Editor Accessory, Intram Ramdisk, Label Maker 2.0, label Making Program, Label Max

1.0, Lightmail, Manual Maker 2.25, Mb Label Maker, MetaView, Mouse Editor, Screen Save, Speak Tex, St Banner, Volume. *[Replaces #281, #294, #323, #324, #340, #343, #344, #352.]*

#254: Utility No. 3 (1988)
AIM To Degas, ARC Accessory, Bootup 2.05, Convert Degas/Neo To Gif, Copy_Format, css Format, Degas to Colr, Degas to Neo, Degas Display, Degas Save, Disk Free, Disk Mech, Disk Modify, Dscan100, Epson Font Editor, Format Acc 1.1, Foldrxxx, Degas Fonts to Gdos, Fast Disk Formatter, FS Hard Disk Optimizer, File Selector 6.0, Hackn100, HyperCopy, ICD Utility, Iff to Spectrum, Koala to Degas, Ledbetter Utilities, Menu Disk Library Prg, Neo/Degas Snap, Neo to Degas, Peniciln, Pm to Degas, PS to PM, Ram Baby, Seek Rate, Show Gif, Snap Shot, Spc to Spu, Spc to Degas, Spc to Gif, ST Maintenance, Tiny Stuff2, Vt52 Graphics Editor, Xutility Formatter. *[Replaces #165, #166, #185, #206, #221, #234, #242, #253, #254.]*

#155: Utility No. 2 (1987)
1_filepr Acc, Access Terminal Prg, Address Book, Arxx, Ash C Shell, Asl, Autodisk, Browse, Bucket, Buffers, Case, Coldboot, DegasPicker, Free Ram, Gem Font Editor, Gem Extended Format, Gulam, Harddisk Auto Boot, Hd Scan, Killer, Label Print, Less (text editor), Loader Acc, Modula-2 Printer, Make, Makerrsh, Mase, Multiple File Printer, Most, Mouse Editor, Print, Print 960, Quick Disk Labels, Ram Buffer Acc, Read Only Control Panel, Simple Disk Caching, Screen Dump, Set Init, Spell, Start 1.1, Start Gem, Thin, Uedit, Uuencode, Uudecode, Verify, Vix Text Editor. *[Replaces #121, #131, #132, #144, #145, #155.]*

#107: Utility No. 1 (1987)
410k Formatter, 8-bit Emulators (Apple/Atari), Address Book, Analyzer, Backup, Banner, Blast, Bulk Disk Eraser, Chop, Clipboard Manager, Contents, Directory Listing prg, Disk Directory Printer, Degas Fonts, Degas Printer Drivers, Density, Deskacc cli, Directory Search, Disassemble Programs, Disk Icons, Encrypt, EZ Squeeze, Fastram, Fast Ram Disk, Fedfont Editor, Fileprint, Function Key Label, Folder 2 Disk, Format, Format 2, Formutil, Helper2, Initdisk, Intersect Ramdisk, Label Printer, Li Directory Lister, Library, Loadram, Mac To Atari, Make 1 MB, Make 512 ST, Micro Marquee, Mike5 Ram Disk, Monitor ST, Amiga Music Studio to St, P Command, Pedit, Picdex, Pr off, Ram_disk, Sbackup, Show1040, Show520, Spool 33k Title Page Printer, Ultimate Ramdisk copy, Vcr Log, Yard Ramdisk. *[Replaces #25, #63, #72, #73, #81, #94, #95, #102, #107.]*

TELECOMMUNICATIONS PROGRAMS

#829: Telecom No. 8 (1993)
Genie: Air Warrior, V2.0e, Aladdin V1.6x, Aladdin Manual, Genie's Assistant 1.0, Aladdin's Magic Browser 1.1, Aladdin Script Manual and Tutorial, Aladdin Viewer 2.0. CompuServe: QuickCIS 1.71, Edhak demo. *[Replaces #553d, #569, #689d, #747d.]*

#798: Telecom No. 7 (1993)
BBS Games: Assassin 1.51, Joute, Thieves' Guild and Thieves' Guild Emulator. *[Replaces #716d, #797d, #798d.]*

#772: Telecom No. 6 (1993)
ST-Keep BBS 4.99 And Triplink! FED BBS. *[Replaces #712d, #715d, #772d.]*

#771: Telecom No. 5 (1993)
Terminal Programs: Connect, V2.10i, Uniterm V20.c, Internet Information. *[Replaces #674d, #771d.]*

#743: Telecom No. 4 (1992)
Terminal Programs: Ansi Term 1.5, Freeze Dried Software Terminal 2.04, Rufus 1.10, VanTerm 4.0, Plus Galactic Empire 2.41 (BBS space game) And Ghost Writer (da to upload messages). *[Replaces #626d, #735d, #743.]*

#714: Telecom No. 3 (1992)
Cows! 8.7 (online text adventure game), Instant Graphics! 2.16 (online graphics interpreter), igs Professional 1.6 (graphics editor), Ms2ig (play Midi songs over modem), slideshow Construction Kit 1.1, Transcendence BBS 2.05 demo. *[Replaces #473d, #713d, #714d.]*

#636: Telecom No. 2 (1991)
Bulletin Board Systems: BBS Express demo, Nite Lite BBS, Omni BBS 1.01, Starnet BBS 1,24, Vulcan Embassy BBS 1.0, Plus Iron Coffins 2.0 (BBS war game). *[Replaces #325, #510d, #584, #636d.]*

#597: Telecom No. 1 (1991)
Terminal Programs: Dualterm Elite 1.04, G.I.M.E. Terminal demo, Hagterm Elite 3.3, Gem-Kermit, Mini BBS, MiniTerm, Moterm Elite 1.41, ST Term. *[Replaces #300, #347, #449, #474, #597d.]*

EDUCATION PROGRAMS

#804: Education No. 3 (1993)
Hooked On Math, Esteem Pilot demo 1.0, Quiz Plus 2.1, Solutions (mathematical software). *[Replaces #270, #526d, #804d.]*

#637: Education No. 2 (1991)
Addup (game), Class 3.1 (Gradebook, Calculator, Stat Package), EZ_Grade demo, GIST (grades, Interims, Student Teams), Math-Auiz, Master-Auiz, ST Spell Wizard 1.0, Teach ABCs 1.0, TestMaster 2.01. *[Replaces #477, #495d, #637d.]*

#566: Education No. 1 (1991)
Basic Math Skills, Capital Fun! 1.0, Cinema, Flashcards, Algebra I: Linear equations and Verbal Problems. *[Replaces #487d, #530, #566.]*

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New CN Library Disks for September

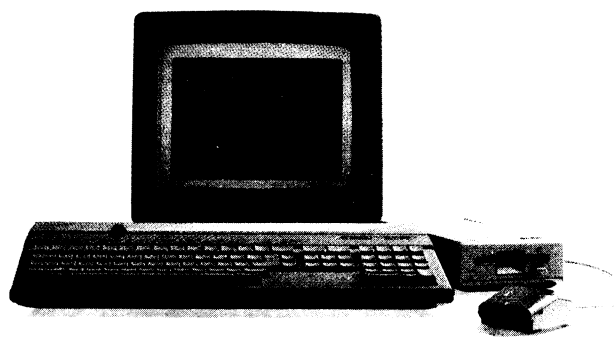
830: GAME DEMO (C). **BUTTONZ AWARI** (See description in this month's New Products section.)

831: GAMES (C). **KABOOM!**–A Dave Munsie conversion from an old 8–bit favorite. **FROGGER!**–Features colorful graphics and smooth game play. Another Dave Munsie conversion of a popular arcade game from days gone by. **BUGS**–Another millipede game, designed by Dave Munsie. **YAHTZEE**–Play Yahtzee with up to 10 players on your Atari! Use either medium or high resolution. **NUMBERS10**–Learn My Numbers is an educational game for children. It works on any STE/TT or Falcon (Not standard ST's!) **DROPIX**–Hottest block game to hit any computer system. (demo)

832: GAMES. ANGBAND is based on Moria. This game is a role playing game that enables you to assume the role of a character and attempt to master the dungeon.

833: GAMES (C). **PYSCHO PIG II**–a very nice platform game written in STOS, but is of very high quality. However, the usual STOS warnings apply. Tested on TOS 1.02. Shareware. **UTOPOS**–Nicely done Space War variant, split–screen with neat weapons.

834: Utility No. 25: **XCONTROL**–V1.31 of the XCONTROL Panel from Atari Corp, with new CPX modules updated to use the new 3D object types available with the Falcon030 and MultiTOS. **TSHCPX_**E–Auto folder and CPX to give you a recoverable trash can. Any file that you 'delete' will be moved to a TRASH folder instead. **CPXBASIC**–Complete BASIC language in a CPX. Much of the doc is in German. Use this with Xcontrol. **GBENCH31**–GEM Bench V3.1 Benchmarking program. **WINNI**–GEM's window limit of 8 is removed by Geneva. This demo merely opens as many windows as possible. Geneva users will get 256. **LHA210**–V2.10 of LHA, the full–function archiver/unarchiver for .LZH archives. This version, released July/93, adds full support for Amiga–style comments (filenotes), and decompression of files compressed with any of the following file compression methods: lz4, lz5, and lh4. **LHA_221**–Chriss Grunenburg has resumed development of LHARC for the ST. This, V2.21, is compatible with Quester's, and a bit faster too. **STZIP23**–STZip V2.3 by Vincent Pomey. Dated July 22 1993. New features and bug fixes. Postcardware. The best archive program for the Atari.



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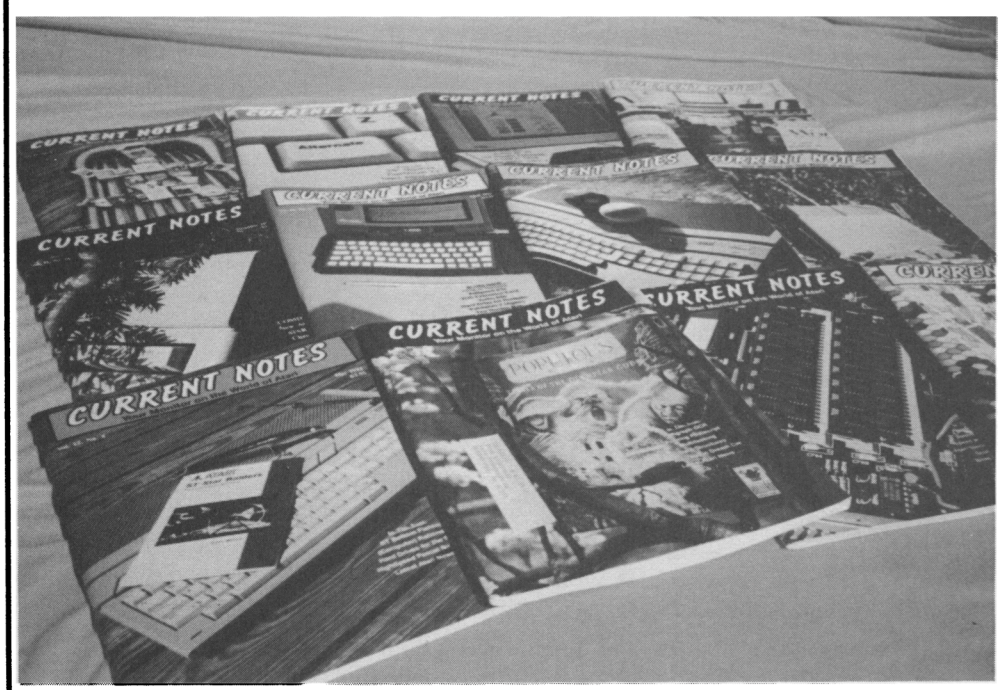

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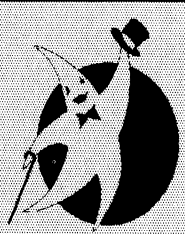

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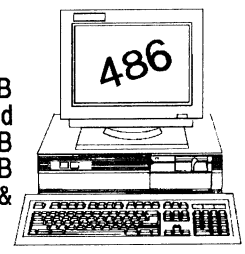

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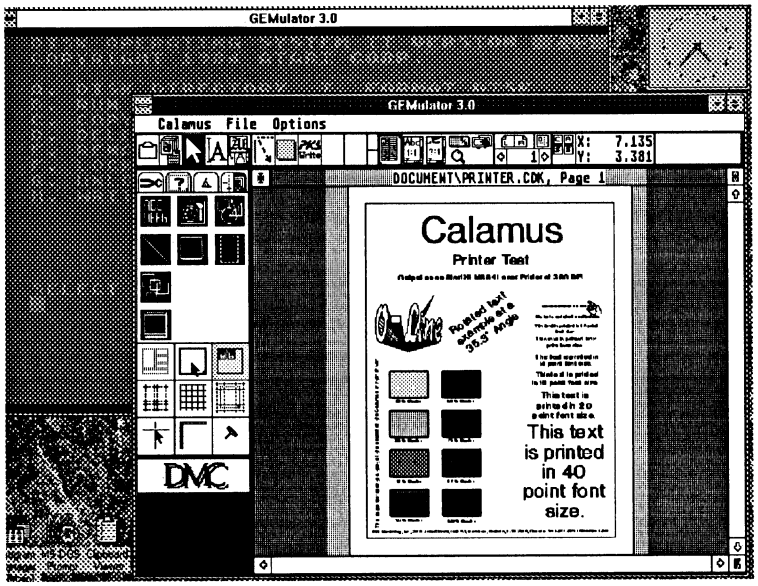

Windows 3.1 screen dump shows Gemulator running Atari XE DOS 2.5 and Calamus SL.

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Reviewed

Fast And Powerful

On fast 486 machines, Gemulator runs 2 to 3 times faster than the ST. That's as fast as the Falcon, and because Gemulator emulates the 68000 chip, not the Falcon's 68030 chip, Gemulator runs software that won't run on the TT or Falcon. For compatibility with ST software that does not run on TOS 2.06, the Gemulator card allows you to plug in any earlier version of TOS. How easily can your ST switch between TOS 1.0, TOS 1.4, and TOS 2.06?

All TOSes

Graphics

Gemulator eliminates the need for having two monitors, since your PC's monitor can display all ST screen modes. The screen dump above shows Gemulator using a 640x480 graphics mode, running Calamus SL under Windows.

Sound

Gemulator now supports sound by using your PC's Sound Blaster, Sound Blaster Pro, or AdLib sound cards.

Hard Disk

Gemulator gives your ST software access to the PC's hard disk. Use Atari's HDX utilities to autoboot from the hard disk. Create up to 4 32-megabyte ST partitions, or share files with PC programs on existing DOS partitions.

Laptop ready

Gemulator runs on laptop PCs, even color laptops, allowing you to use your favorite Atari ST software almost anywhere, on smaller and lighter machines than the Atari STacy. All you need is a laptop with an 8-bit card slot.

The complete Gemulator 3.0 package containing the emulator with U.S. TOS 2.06 ROMs costs only $229 U.S. Current Gemulator 2.1 users can upgrade for only $30 before September 3. For a flyer with ordering information and a more detailed description of Gemulator 3.0, write or send email to:

Branch Always Software, 14150 N.E. 20th Street, Suite 302, Bellevue, WA 98007

Phone (before 2pm Eastern time) or FAX: 206-885-5893 CompuServe: 73657,2714 GEnie: BRASOFT Delphi: DAREKM

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